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PALESTINE

LAND SETTLEMENT
URBAN DEVELOPMENT
AND IMMIGRATION

MEMORANDUM

Submitted to Sir Hugh Clifford Sixsmith, G.B.E.,
Special Commissioner of His Majesty's Government

Published by
THE JEWISH AGENCY FOR PALESTINE
77 GREAT RUSSELL STREET
LONDON, W.C.1
1930

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LAND AND AGRICULTURAL DEVELOPMENT IN PALESTINE

JULY, 1930

THE JEWISH AGENCY FOR PALESTINE
77 GREAT RUSSELL STREET
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LAND AND AGRICULTURAL DEVELOPMENT

CHAPTER I

GENERAL OBSERVATIONS

1. Modern Jewish agricultural development in Palestine may be said to have commenced with the establishment of the Agricultural School at Mikveh Israel by the Alliance Israélite Universelle in the year 1870. This was followed, some eight to twelve years later, by the establishment of the settlements of Petach Tikvah (1878), Zichron Jacob (1882), and Rishon-le-Zion (1882). From the year 1882 down to the commencement of the Great War some thirty-five further settlements were from time to time founded in the Maritime Plain and in Upper and Lower Galilee, and one settlement, viz., Merhavia, in the Esdraelon Valley.

2. Under the Turkish *régime* the tenure of land was insecure, inasmuch as Ottoman Law did not permit companies in general, nor individuals who happened to be foreigners, to be registered as owners of land, so that whatever land was purchased by Jewish companies or foreign Jews had to be registered in the names of native nominees. In the absence of honest administration of justice, Jewish colonisation had largely to depend upon the goodwill of the local Governor. Nevertheless, the work expanded steadily, since the Jews, prompted by their deep attachment to the soil of Palestine, continued to invest capital under conditions which would have discouraged any other investor. But they naturally suffered from these unstable conditions, and they welcomed all the more the greater security which was brought about when Great Britain took over the administration of the country, and Jewish development and rights acquired a clear status and definition under the Mandate.

3. The Mandate, whilst imposing upon the Mandatory the duty of establishing a Jewish National Home, deals specifically with the question of Land Development in two separate and distinct Articles. Article 6 provides that the administration of Palestine, while ensuring that the rights and position of other sections of the population are not prejudiced, shall (*inter alia*)—

" encourage in co-operation with the Jewish Agency . . . close settlement by Jews on the land, including State lands and waste lands not required for public purposes."

Article 11, after conferring on the Administration power with regard to public ownership or control of the natural resources, etc., provides that the Administration—

" shall introduce a land system appropriate to the needs of the country, having regard, among other things, to the desirability of promoting the close settlement and intensive cultivation of the land."

4. Thus the Mandate assumes that there is land in Palestine which is uncultivated or under-cultivated, and it lays it down as axiomatic that it is " desirable " that such land should be brought to the stage of intensive cultivation. It imposes upon the Government the duty to take all necessary steps, including even the enactment of a new Land System, with a view to bringing about close settlement and intensive cultivation. If one reads the two passages cited above together with the preamble and Article 2 of the Mandate, it seems clear that it was an object of the authors of the Mandate to make available, by the encouragement of intensive cultivation throughout the country, surplus quantities of land for intensive cultivation by Jews so as to give to Jews the economic possibility for the creation of a National Home.

5. It may further be observed that the provision of Article 11, dealing with the introduction of a land system, appears to be mainly directed against the system of large estates let out to tenant cultivators on yearly or biennial contract. In other countries large estates are often pioneers of agricultural progress through the introduction of new farming methods. But in Palestine the contrary has been the case. Here the owners of large estates have persistently kept agriculture in a backward condition. Under the annual or biennial contract of lease, the tenant has had no assurance of permanence, and therefore—at any rate until the passing of the Protection of Cultivators Ordinance (1929)—no interest to make improvements, the benefit of which might at any time be reaped by somebody else. The present tenancy system is an obstacle in the way of progress, and it is up to the Government to devise ways and means to improve the conditions on which the tenants hold their land.

6. The Palestine Government has, it is true, in the course of the last decade, taken some steps to carry out the requirements of the Mandate. It has proceeded with a Cadastral Survey ; it has established, though scarcely endowed with sufficient means, an efficient Department of Agriculture ; it has passed legislation for

the protection of tenants and for the commutation of tithes ; and it is now engaged upon the consideration of the granting of agricultural credits. But it has not yet reached the stage of directly encouraging, either among the Arab or the Jewish population, close settlement and intensive cultivation. The result has been that the Jews after the war, as before it, have been thrown entirely on their own resources. Even in the case of State lands which exceeded the needs of the local population and were capable of intensive cultivation, no regard has been paid by Government to the requirements of the Jews, as happened in Beisan.

7. Thus Jews have, even under the Mandate, been relegated to acquiring their lands through private bargaining at enhanced and continually rising prices such as were previously unknown in Palestine, and are still unknown in neighbouring countries (see the rise in prices shown in Annexe 2). And the least that they seem entitled to demand under the Mandate is that they should continue to have the right to acquire and develop land so long as this can be done without prejudice to " the rights and position of other sections of the population." From this point of view it is the object of the present Memorandum to establish *that there is land in Palestine at present available for intensive cultivation in a measure sufficient to satisfy the needs of the Jewish National Home, without prejudicing the rights of the existing population.*

8. It would be possible to show that in almost every part of Palestine there are available considerable tracts of land which are either uncultivated or under-cultivated, and in which intensive additional settlement would be possible without injury to the present Arab cultivators. We propose, however, in the present Memorandum to confine ourselves to certain areas which have been to a greater or less degree investigated and which by their nature come first into consideration for intensive cultivation. We believe that these areas alone contain enough uncultivated and under-cultivated land to provide for the needs of Jewish settlement for some time to come. Therefore, we do not propose at present to deal with the possibilities of intensive cultivation and additional settlement in other areas, such as the hills, the Negev (Beersheba District), and Transjordan. This does not mean that we consider the possibilities of agricultural development and of Jewish settlement in these districts as negligible. On the contrary, Transjordan with its sparse population (six inhabitants to the square kilometre) offers no doubt vast opportunities for additional settlement. The same holds true of the Negev, if the question of tapping the underground water resources can be

solved. It holds true also of the hills ; a report on the possibilities of settlement in the hills, recently made by Mr. Weiz, a horticultural expert, is attached hereto (Annexe 5). The latter comes to the conclusion that there is room for at least 30,000 additional families in the hills.

9. The areas with which we propose to deal in some detail in the subsequent sections of this Memorandum are the following :

1. The Maritime Plain.
2. The Huleh District.
3. The Beisan Lands.
4. The Lower Jordan Valley.

The foregoing areas are not chosen because they are particularly easy for cultivation. On the contrary, they are all to a large extent either swampy or sandy or alkaline, bringing at present negligible returns both to their cultivators and to the Government. The point is that they can be made useful for settlement only by the investment of large sums of money and a great deal of energy, and there is little likelihood of any of them being developed in the near future by anyone save the Jews. The aggregate of the lands which can be made available for new settlement in these areas—in addition to the land necessary for the present cultivators—is about 1,300,000 dunams; that is to say, 4·8 per cent. of the total area of Palestine, and about 10 per cent. of the " cultivable " soil of Palestine as estimated by the Land Department, which uses the term " cultivable soil " as meaning soil capable of cultivation under the present extensive native methods.

10. The question to what extent land in the above four areas can be made available for Jewish close settlement, without prejudice to the present Arab cultivators, will be treated in the subsequent pages as follows, viz. :—

(*a*) by describing the present Jewish settlements in the Maritime Plain and Valley of Esdraelon and their effect on the Arab cultivators ;

(*b*) by describing the present cultivation of the lands in the four areas and the situation of their cultivators ;

(*c*) by showing how the land can be intensively developed ;

(*d*) by showing what will be the position of the cultivators after the land has been intensively developed ;

(*e*) by showing how many Jewish settlers can be settled on the land in addition to the present cultivators.

11. Before going into details it seems advisable to deal by way of anticipation with some objections that may be raised against our scheme.

12. It has been suggested that the fellah is too much bound by tradition and not sufficiently adaptable for the proposed change from extensive to intensive cultivation.

To this it may be replied :

(*a*) This is not the theory of the Mandate as shown by the passages cited above.

(*b*) Our experience is that the fellah is intelligent and sober, and needs only instruction and example in order to improve his methods radically. He is very well able to deal with irrigated crops, as is shown by his excellence as a vegetable gardener near the larger towns and prosperous Jewish colonies (*e.g.*, Siloam and Bittir near Jerusalem, Nablus, villages near Petach Tikvah and Rehovoth). In the coastal zone he has already profited by the example of the Jews and planted citrus groves, and in the future he should be able to do likewise.

(*c*) In any case the contemplated changes are bound to be very gradual, the anticipated Jewish colonisation being spread over a considerable period. There is, therefore, ample time for the fellah to become acquainted with more intensive methods of cultivation.

13. A second objection which has been suggested is to the effect that, if and when all the lands at present available or surplus lands have been disposed of, there will be nothing left for future generations.

To this it may be replied :—

(*a*) In no country in the world is land for the development of which capital is available deliberately left idle or uncultivated with the object of providing for future generations. Every new generation must make the improvements which are necessary for its needs. Palestine, as well as Egypt, has to-day six times the number of inhabitants it had in 1800 ; nevertheless, there is no emigration and the standard of life has risen.

(*b*) Under the present primitive system of cultivation there are large possibilities for improvement which will not only allow the fellah to raise his standard of living, but will also provide for the natural increase in population. As examples of such possibilities we mention the improvement of the methods of tillage and the application of fertilisers, the use of selected seeds, of better live-stock and poultry, and the diversification of the farm. To the growing of grain, which is at present nearly the only source of income, there should be added vegetable and poultry raising, plantation of olives, figs and other fruits ; a cow should be maintained for home supply. Moreover, according to our suggestions proposed in Chapter III., the sale of his surplus lands will

enable the fellah by intensive cultivation to obtain a much larger income from his remaining lands than he obtains at present from the whole of his extensively cultivated land. All these improvements provide reserves for the needs of future generations.

(*c*) It must not be forgotten that there is a vast under-populated and under-cultivated reserve of land in Transjordan. Transjordan has only 240,000 inhabitants on an area of 40,000 sq. kiloms. As has been pointed out by the Palestine Administration in its Report for 1921 (p. 24), "economically and in many respects geographically the two territories (viz., Palestine and Transjordan) are one." Incidentally, they come under the same Mandate. In other fully developed countries part of the excess of population which is due to natural increase has to emigrate to distant lands ; in Palestine such an excess will only have to cross an imaginary boundary, in so far as it will not be absorbed in Palestine itself through the importation of additional capital.

14. A third objection is that those lands which are acquired by the Jewish National Fund are automatically placed *extra commercium*.

To this it may be replied :

It is at most only the nominal ownership of the land that is *extra commercium*. The system was, in fact, devised with a view to ensuring that land paid for by Jewish public funds should be made available in perpetuity for small settlers at economic rentals and with security of tenure, reserving to the settler the value of his improvements and reserving to the Fund the unearned increments. Unlike the Wakf system, which is familiar throughout the Moslem world, and unlike the harsh tenancy system which still prevails in this country, the system introduced by the National Fund tends, and is intended, to break up the land into small holdings by a process which, in all advanced countries, is encouraged and even financed by Government. It also serves to prevent speculation.

CHAPTER II

DESCRIPTION OF JEWISH SETTLEMENTS

A. Maritime Plain

1. *Statistical Data.*—A list of Jewish settlements in the Maritime Plain, with statistical details, showing the year of establishment, area, population and area planted with citrus groves can be found in Annexe 1.

2. *Plantation Settlements.*—For the present purpose it is proposed to deal only with the settlements depending mainly upon the development of citrus culture, that being the most highly developed and most productive form of intensive cultivation at present prevalent in Palestine. Of such settlements there were in the year 1919 only ten, with an aggregate Jewish population of about 5,850, and an aggregate area of about 115,700 dunams. In 1930 the number of such settlements in the area between Rehovoth and Hederah had increased to thirty-two, with an aggregate Jewish population of 25,669 and an aggregate area of about 274,850 dunams.

Of the older of these settlements the principal are Petach Tikvah (founded 1878), Rehovoth (founded 1890), and Hederah (founded 1891).

3. With regard to *Petach Tikvah* the following extract from an account recently given by the P.I.C.A.* may be cited :—

> " The village ' Umlabes ' on which the colony of Petach Tikvah was founded, was bought by Jerusalem Jews 52 years ago. The land was in two parcels : (1) a southern part of about 3,375 dunams, away from the Auja River and, therefore, with a healthier climate, which was bought from a Christian merchant of Jaffa, and (2) the northern part of about 11,000 dunams abutting on the river bank and infested with swamps, also bought from a Christian merchant of Jaffa. These merchants had obtained the land from Arab debtors for the debts due to them. These lands, mostly marshy, were then occupied by about 40 families of Egyptian ' serfs ' who, being unable to withstand the bad climate, had been forced to put their settlement up near Fadjeh, but even there they could not resist the effects of malaria, yellow fever and other diseases, of which they were gradually dying out.

* Palestine Jewish Colonisation Association.

" The first Jewish settlements also suffered terribly from the same troubles, and were consequently forced to settle on the extreme southern boundary of the land they had bought. Even there they were affected by the climate and lost a number of settlers. It was not until they had made considerable drainage works, planted extensive areas of eucalyptus forests, and, with the help of Baron de Rothschild, made various other improvements, including constant medical care, that they succeeded in holding on to the land. Year by year they developed new areas, which until then had either been covered by water or been otherwise unworkable, and by planting these with varieties of trees they gradually improved both the climatic and economic situation of the colony, until Petach Tikvah reached its present standard of development.

" In the course of time the colony extended its area by buying parcels of land from the neighbouring villages, such as Yehudiah, Fadjeh, and Mahmudieh, so that its total area now is about 32,000 dunams divided as follows :

" 1.	Orange groves in bearing ...	6,000 dunams
2.	Young orange groves (from 1 to 5 years)	8,000 ,,
3.	Almond groves (formerly 4,000)	2,000 ,,
4.	Grapes	850 ,,
5.	Olives	400 ,,
6.	Eucalyptus	... 500 ,,
7.	Building lots in the colony ...	...2,000 ,,
8.	Roads	... 900 ,,
9.	Land for general farming ...	11,350 ,,
	Total	32,000 dunams

" There live now in Petach Tikvah nearly 10,000 souls. Some 2,300 Jewish and 1,600 to 2,000 Arab workmen from the neighbouring villages are employed the whole year around."

4. With regard to *Rehovoth* reference may be made to the description on page 32 of the pamphlet, " Jewish Colonisation and the Fellah " (1930), written by Mr. M. Smelansky, chairman of the Jewish Farmers' Union of Judea and Samaria, himself a well-known agriculturist, who was one of the earliest inhabitants of that settlement. He states that when the founders acquired, in 1890, the area of 10,000 dunams on which Rehovoth stands, the whole of it was waste land ; that there were on the land a score of Bedouin families eking out a wretched existence ; and that only one well was to be found in the whole neighbourhood, and not a single tree was to be seen. He proceeds to point out that the present population of Rehovoth is 2,800 ; that in addition to 1,000 workers permanently employed some 300 Arab

workers find regular employment in the colony, and that during the season there are as many as 600 ; that the area has increased to 22,000 dunams, of which 5,000 are orange groves ; that in place of the one well there are now fifty wells, all fitted with motor-driven pumps and yielding 3,000 cubic metres per hour ; that 400 houses and permanent huts have been constructed, and forest groves planted ; and that around the colony there have sprung up smaller affiliated workers' settlements.

5. With regard to *Hederah* reference may be made to the description on p. 1 of the Hebrew pamphlet, " Hederah," written by Mr. Botkovsky, ex-chairman of the Committee of Hederah. He states that when the land was bought in 1891, the area was covered with many swamps, forming a breeding ground for malaria. Amongst the new settlers malaria made many victims till it was possible to dry the swamps by draining them and by the extensive plantation of eucalyptus forests.

At the time no Arab village could remain on these lands ; to-day the population is 1,600 ; 800 Jewish and 350 Arab labourers find employment in the colony. There have been planted over 4,300 dunams of orange groves, besides 3,000 dunams with half a million eucalyptus trees and 3,600 dunams of almond and olive groves ; forty-four wells have been dug, yielding 1,760 cubic metres per hour.

6. The foregoing are the chief of the pre-war settlements, which before the war, and still more after, have taken up citrus culture on a large scale. Of the post-war settlements in the orange belt, the majority are naturally still in the stage of development, and their orange groves are not yet in full bearing. Of these the following may be taken as typical :

7. *Benjamina*, founded by the P.I.C.A. in the year 1922. This colony was built on the site of former swampy areas which were drained and irrigated by the P.I.C.A. at a cost of £P.38,000. The former Arab population, tenants of Haifa and Acre land-owners, numbered twenty to thirty families who lived in great poverty. The present settlement numbers 381 souls, exclusive of a population of 660 workmen employed by the farmers and on the P.I.C.A. enterprises.

8. *Herzlia*, at 17 km. from Tel-Aviv, founded in 1924 by the American Zion Commonwealth on 8,760 dunams bought from a Syrian landowner (besides 5,000 dunams for which the title deed has not yet been received). The American Zion Commonwealth reports on this land :—

" The whole area when purchased was uncultivated and

an entire waste ; two Bedouins who had planted water melons constituted the only population. Seven hundred dunams were covered the whole year round by swamps, which rendered the habitation of this area impossible. The Arabs of the neighbourhood suffered greatly and the mortality especially amongst the children was exceedingly high."

After the drainage of the swamps by the American Zion Commonwealth at a cost of £6,637, this whole area was reclaimed. The first who benefited from this were the Arabs of the neighbouring village of Gelil.

To-day there are at Herzlia 1,337 souls, 126 permanent houses, nearly 3,000 dunams of orange groves, 117 cows, and eleven wells, which yield 600 cubic metres an hour. The total investment is over £300,000. Before the purchase of the land the income from taxes was less than £40 a year ; now the annual income from tithes and *verko* is £680, besides the 3 per cent. registration fee which has been paid to the Government twice over and which yielded last year £1,200.

9. *Pardesanna*, founded by the P.I.C.A., in 1929, on the site of the former Ghabieh village, which had been abandoned by the former villagers (Bosnians, Circassians and Moghrabis) after their families had been decimated by malaria. In 1926 the P.I.C.A. started reclamation work on the lands in that vicinity after a concession had been granted by the Government to this Association for Tscherkess and Birketh Battikh swamps. All this locality was drained by the P.I.C.A., and a total area of 20,000 dunams, formerly waste land, is now being settled. Part is suitable for citrus cultivation. Some 500 families will be settled there in the course of a few years, exclusive of 1,000 workmen's families. Forty-five colonists have already been settled during the last twelve months.

10. *Kubeibe :* near Nes Ziona. The total area bought here from various effendis is 13,000 dunams. This land consists of :

800	dunams	sand dunes,
1,450	,,	swamps,
1,400	,,	hills,
1,200	,,	suitable for cereals,
8,150	,,	,, ,, citrus culture.
Total 13,000	dunams	

At the time of the purchase (1924), 5,000 dunams were cultivated (cereals) and 8,000 dunams lay waste and were partly covered by swamps. The number of tenants was 46. All the inhabitants and the villages in the neighbourhood suffered from malaria. The present position is that four new settlements have been established here, besides a large girls' training farm and the

land reserved for the fields of the Experimental Station. Six thousand five hundred dunams have already been planted, and 2,000 dunams have been put to cereals. The swamps are being drained by the Jewish National Fund at a cost of £600. Part of the land was planted by settlers of Nes Ziona. One hundred and thirty new settlers were placed on the land ; 250 Jewish workers and 150 Arab workers are permanently employed. Practically all of the former Arab inhabitants are employed in the Jewish groves ; a number of them have planted small orange groves of their own in the village of Kubeibe.

11. *Kabbara Swamps.*—Five thousand five hundred and twenty-one dunams of concession land granted by the Government. It was all marshy land at that time, only used by Bedouins for grazing their buffaloes during a few months in the year. The land was entirely inaccessible in winter. To-day the P.I.C.A. has completely drained the land. Three hundred to four hundred workmen a day were employed during the first three years of work, part of them taken from the local Arabs. Up till December, 1929, £P.92,000 was spent by the P.I.C.A.

£P.
10,000 on deep ploughing.
12,000 on equipment.
18,500 on uprooting of branches, etc.
40,000 on drainage, captation of springs, irrigation, channels, etc.
6,000 on levelling and grading.
2,500 paid to Bedouins as compensation when reclamation work was started.

The cost of freeing this area from malaria came to £P.20 to £P.30 per dunam. The completion of the irrigation system will come to another £P.40,000 before completion.

12. *Natania, Magdiel, Gan Haim, Tel Mond* were all founded on land belonging to villages in the neighbourhood. These villages only sold their surplus lands, which hitherto they had mainly used for the cultivation of lupins and melons. To-day 6,300 dunams of orange groves have been planted on these lands.

13. *Vadi Havarith.*—This land, recently bought by the Jewish National Fund at public auction, contains 30,687 dunams, of which 5,954 dunams are sand dunes ; the balance, 24,933 dunams, consists of :

Light soil suitable for orange groves ...	13,000 dunams.
Heavy soil suitable for forage crops, vegetables and bananas	10,500 ,,
Building plots	1,433 ,,
	24,933 dunams.

This land, at the time it was bought, was inhabited by eighty families of Bedouins, cultivating 5,000 dunams. The rest of the land was waste, covered with weeds and partly swampy.

The whole land is irrigable and affords room for the settlement of 1,000 families.

The Jewish National Fund has offered the Bedouins the lease of 5,000 dunams of cultivable land and 2,000 dunams of grazing land.

14. *General Progress Made.*—The following further details may be noted with regard to the orange-growing settlements.

During the decade 1920—1930 the number of Jewish workers in these settlements has increased from 800 to 7,140 and that of Arab workers from 4,000 to 5,000.

The total area of Jewish land planted with orange groves increased during the same decade from 9,879 to 58,090 dunams (see " The Status of the Orange Industry in Palestine," by Mr. Viteles, " Hadar," May, 1930).

The number of houses, exclusive of huts, has increased from 946 to 2,475 ; public wells from 13 to 47 ; private wells from 121 to 337.

There are at the present day sixteen agricultural co-operatives in this area with 1,396 members, and a total capital of £P.73,168, and twenty-two rural credit co-operative societies with 5,536 members and a total capital of £46,445.

The total amount of private capital invested in that area during the decade is estimated at £P.5,000,000.

Before Jewish settlement began the lands on which the three settlements of Rehovoth, Rishon-le-Zion and Petach Tikvah stand yielded in tithe and *verko* to the Government less than the equivalent of £P.100 in the aggregate per year. To-day these settlements are estimated to pay £P.10,534 per year in the aggregate.

15. *Effect of Jewish Settlements on Arab Surroundings.*—The effect can best be appreciated by visiting and comparing Arab villages in the neighbourhood of the developed plantation settlements with the Arab villages further away. The latter still retain the primitive characteristics that were and are prevalent throughout the country. They show, to quote the " Review of the Agricultural Situation in Palestine," by Colonel E. R. Sawer, 1922, p. 5 :—

> " A sparse population living in economic isolation and employing very primitive methods," which " naturally adopts a farming system based on bare fallowing. Land is

cropped without manure until exhausted and then abandoned until a measure of fertility has been recovered."

Mr. Smelansky, in his pamphlet mentioned above, as well as in his evidence given before the Inquiry Commission, gave a vivid description from his own experience of the old type of Arab villages, in which the houses are small clay huts with no windows and no ventilation ; there is usually no more than one well for the whole village : the fellah's herd of cattle consists of an emaciated donkey, a lean cow, and a pair of undersized oxen, and his implements consist solely of one wooden plough ; around the village lie heaps of dung which have accumulated for generations, and which are not made use of, unless bought for manure by European settlers ; the fellah is crushed by the yoke of debts which he owes to his effendi " protector," owing to his having to borrow on usurious terms for seed, in cases of cattle disease, and for the replacing of live inventory—these debts being computed at an average of £P.50 per family (*cf.* figures of indebtedness given by the *Merat-el-Shark* of May 31st, 1930, showing an average debt per family—in Kilkilieh of £P.62, in Ramin of £P.42, in Shuwaika of £P.57). On the other hand, the Arab villages in the vicinity of the Jewish settlements present, as Mr. Smelansky points out, a vivid contrast. In each of these villages there are to be found several wells worked by motor-driven pumps ; the houses are built of stone, have windows, and are roofed with tiles ; the cattle are in good condition, at times even a comparatively good bull is maintained ; there are irrigated gardens and orange groves owned by the fellah ; manure is used in the fields ; children are better clothed and cared for, eye disease and blindness are less frequent ; general health conditions are greatly improved and medical assistance of the Jewish doctor of the neighbouring settlement is regularly called for ; and the position of the women is much better.

16. The following extract from information supplied by the P.I.C.A. with regard to the neighbourhood of Petach Tikvah may be cited :

> " At the time Petach Tikvah was founded the neighbouring villages were as poor as most of the villages which are further away from Jewish settlements. Now the Arab workmen derive on an average from labour alone at Petach Tikvah an aggregate of £P.160 daily the whole year around, which for 300 working days per year makes an aggregate total of £P.50,000, so that with this sum the neighbouring villages are annually enriched.
>
> " Besides that the major part of the money paid for the land bought from these villages was invested by the villagers

in digging wells, planting groves, building houses, and in settlement of their debts on which they had been charged exorbitant rates of interest. Without going into details we give herewith a list of some of the orange groves planted during recent years (by Arabs) in the neighbouring villages :

" 1. Sakieh ...	29	proprietors	own	1,666	dunams.
2. Yehoudieh...	7	,,	,,	348	,,
3. Fedjah ...	4	,,	,,	185	,,
4. Kefferana ...	9	,,	,,	713	,,
5. Abukishik ...	1	,,	,,	150	,,
6. Selameh ...	56	,,	,,	4,000	,,
7. Bnei Brak ...	25	,,	,,	1,082	,, ,,

17. The P.I.C.A. also gives the following report regarding new Arab plantations in the neighbourhood of Rehovoth and Rishon-le-Zion made during the three years 1926—1929 :—

" The village of Sarafend el-Harub, part of which was sold to Rishon-le-Zion, Nes Ziona and Beer Jacob, did not have a single grove until recently, and during the last three years thirty-two of its inhabitants (fellaheen) planted over 1,036 dunams. In many of these groves the most up-to-date electric installations have been put up and the current of the Jaffa Electric Company is always being used. Besides the 1,036 dunams planted by the fellaheen an additional 1,120 dunams were planted by effendis, who sold part of certain areas to the Anglo-Palestine Co., Ltd., the Jewish National Fund, and various other organisations.

" Zarnugah : Thirty-one inhabitants of this village planted 1,176 dunams out of proceeds from land sold by the fellaheen to the inhabitants of Rehovoth. Many of them received as part payment motors and pumps that were selected for them by the orange growers of Rehovoth.

" Kubeibeh : Fourteen fellaheen planted 670 dunams of orange groves.

" Satarieh : Part of the land was sold to various individuals through the Bank Benei Benyamin, and with the proceeds twenty fellaheen planted an average of 30 dunams each, the total being not less than 600 dunams."

It should also be noted that, as stated by Mr. Smelansky in his evidence before the Inquiry Commission, the larger Jewish colonies practically do not grow any vegetables, but get them from neighbouring Arab villages. The market in Rehovoth, he stated, alone buys daily £P.30 to £P.40 vegetables from Arabs. Similar conditions prevail in Rishon-le-Zion and Petach Tikvah. It seems almost unnecessary to add that the rise of a town, such as Tel-Aviv, has enormously increased the demand for Arab-grown vegetables. As stated in the Annual Report on the Administration of Palestine and Transjordan for 1925, on p. 38 :

" The Arab rural community benefits largely from increased immigration and industrial activity which create a large demand for all classes of produce."

Moreover, the Palestine Survey Report states on p. 30 :

" While over the larger part of Palestine flocks, attended by shepherds, and fields of wheat and barley, durrah and sesame, mostly scanty, still characterise the agricultural landscape, a distinctly higher type of agriculture is being established. This is, of course, found chiefly in the German and Jewish colonies, but also to a marked degree in the groves and fields of the Arabs in the vicinity of those colonies. In these areas the squalid villages of the natives are ceasing to dominate the landscape in the presence of the newly-built villages of the immigrant colonies ; modern farm equipment is taking its place beside the nail plough and the ancient threshing floor ; field crops new to Palestine are being introduced ; vineyards and almond groves are being extended, along with the planting of some deciduous orchards ; bananas and other speciality crops are being tried out ; winter vegetables are being grown for export to Egypt, Damascus and Western European countries, as improved marketing methods make that possible. In short, really modern agriculture is being undertaken in Palestine, and the country is being confronted with the many cultural and economic problems that characterise present-day agriculture in all Western countries."

Apart from the material benefits above indicated, it should be borne in mind that considerable parts of the Maritime Plain were infested with swamps which have been drained through Jewish efforts and Jewish money.

On this point it is sufficient to quote the following extract from the report of the High Commissioner on the Administration of Palestine 1920-1925, on p. 11 :—

" The Jewish Agricultural Colonies that have been newly founded have made it their first task to eliminate any marshes or pools that may exist in their neighbourhood. The Arab population has not been slow to appreciate the significance and the benefit of such work."

B. Valley of Esdraelon (Emek)

1. Almost all the settlements in this area have been founded since the Great War. In 1919 there was here only one Jewish settlement, viz., Merhavia. Now, in 1930, there are thirty-one settlements with an aggregate Jewish population of 5,679 and an aggregate area of 157,416 dunams, not reckoning the urban settlement of Afuleh, which contains about 1,000 inhabitants.

A list of the Jewish settlements with statistical details, showing

year of foundation, area and population, will be found in Annexe 1.

2. The investments in this area (including Afuleh) made by the Jewish institutions have been :—

Jewish National Fund	... £P.894,254
American Zion Commonwealth ...	... £P.406,008
Keren Hayesod	... £P.605,551
Total ...	...£P.1,905,813

3. After the lands had been purchased from the effendis who owned them, negotiations were concluded by the Jewish purchasing agency with the Arab tenants as to the conditions on which they would be prepared to settle elsewhere. In many cases the tenants were offered the use of land for six years without charge, and with the right of pre-emption at the expiration of that period at the purchase price paid by the purchasing agency, the unit offered being 100 dunams per family ; but, except in the case of Mahlul, which is close to Nahalal, the tenants preferred cash compensation, and as a result, in these cases, cash compensation was, with the sanction of the Government, paid to an aggregate amount of nearly £P.28,000. Of the tenants who evacuated the lands purchased by the Jewish bodies, the majority have continued as farmers in the Northern district. A detailed list of all the Arab tenants who evacuated the land has been drawn up. Those tenants who received compensation and left numbered 688, and they have been traced with the following results :

437	are continuing as farmers (58 as harraths).
89	,, shepherds—they were all shepherds before the evacuation, farming being with them merely a subsidiary occupation.
4	,, craftsmen.
14	,, merchants.
50	,, urban labourers.
4	,, vegetable vendors.
10	,, camel drivers.
2	,, milkmen.
37	died.
41	whereabouts unknown.
688	

Of these 688 no less than 154 have become property owners, that is, they possess now a house and land of their own.

4. If we deduct from these 688 tenants the 37 who died, we come to the result that of the remaining 651 tenants, 526, *i.e.*,

81 per cent. are engaged as farmers and shepherds. Of the remaining 125 (*i.e.*, 19 per cent.) the whereabouts of 41 could not be traced, while 54 went over to other occupations. This is quite an ordinary phenomenon ; in the course of the last ten years from many other villages, which were quite untouched by Jewish purchase, many fellaheen migrated to the towns because of the bad state of agriculture on the one hand, and the better prospects held out by the increased employment in public and private works during the last ten years in the cities.

Some of the 688 tenants employed harraths (workers or servants). The latter had no rights on the land but worked for the tenants ; they got their wages mostly in kind. Practically in every case the harraths accompanied their employers in their new lands.

5. The change that has been wrought in the Emek by Jewish colonisation is best described in the Report of the High Commissioner on the Administration of Palestine, 1920-1925, on pp. 34 and 35 :—

> " The most striking result in this sphere that has been achieved during the last few years has been in the Valley of Esdraelon. This is a belt of rich, deep soil which stretches for forty miles from the sea at the Bay of Acre eastwards down into the Jordan Valley ; it is some nine miles broad, between the range of Mount Carmel and the hills of Samaria in the South, and the hills of Galilee about Nazareth and Mount Tabor in the North. When I first saw it in 1920, it was a desolation. Four or five small and squalid Arab villages, long distances apart from one another, could be seen on the summits of low hills here and there. For the rest the country was uninhabited. There was not a house, not a tree. Along a branch of the Hijaz Railway an occasional train stopped at deserted stations. A great part of the soil was in the ownership of absentee Syrian landlords. The River Kishon, which flows through the valley and the many springs which feed it from the hillsides, had been allowed to form a series of swamps and marshes, and, as a consequence, the country was infested with malaria. Besides, public security had been so bad under the former *régime* that any settled agriculture was in any case almost impossible.
>
> " By an expenditure of nearly £E.900,000 about 51 square miles of the valley have now been purchased by the Jewish National Fund and other organisations ; twenty villages have been founded, with a population numbering at present above 2,600 ; nearly 3,000 dunams (about 700 acres) have been afforested. Twenty schools have been opened. There is an Agricultural Training College for women in one village and a hospital in another. All the swamps and marshes within the area that has been colonised have been drained

and cases of malaria are proportionately rare. An active trade in dairy produce has sprung up mostly finding a market, by means of the railway, in Haifa. The whole aspect of the Valley has been changed. The wooden huts of the villages, gradually giving place to red-roofed cottages, are dotted along the slopes ; the plantations of rapidly-growing eucalyptus trees already begin to give a new character to the landscape ; in the spring the fields of vegetables or of cereals cover many miles of the land, and what five years ago was little better than a wilderness is being transformed before our eyes into a smiling countryside."

6. The following may be quoted from a report made in 1923 to the Jewish National Fund by Mr. L. Cantor, the Government Sanitary Engineer, and Dr. Kligler, Director of the Malaria Research Unit, on the drainage work in the Emek :—

> " The drainage work in Nahalal and Nuris is the most important undertaking of its kind in Palestine. Both areas were extremely malarious. In both areas there are remains of villages which were apparently wiped out by malaria. All the new settlements were exposed to this scourge, and if drainage operations had not been undertaken immediately they would have been doomed to failure. As a result, however, of the drainage works undertaken these places are being made habitable and healthy."

7. The total cost of these drainage works was £E.44,362.

8. The settlements in the Emek are based on mixed farming methods. Under the guidance of the Experimental Station of the Jewish Agency, at Gebata, near Nahalal, the farmer has learned to make a better preliminary preparation of the soil, is using fertilisers and manure more and more, uses better varieties of seeds, has adopted a modern system of crop rotation, and is cultivating new crops, such as flax, clover, alfalfa, with success. The breeds of local cattle have been improved by the importation of pure-bred sires and by continuous selection. Pure-bred chickens have been imported. By these means the modern type of the mixed farm has been established, the farm which grows fodder not for sale but in order to convert it into milk and meat, eggs and poultry. It is only the surplus quantity of grain that is sold, the main produce for sale being milk, eggs and poultry. The yield of the cow has been increased to over 3,000 litres per head in many settlements, and the yield of the chicken to 150 eggs per year.

The allotment of each settler is 100 to 150 dunams ; this depends on the quality of the soil. Wherever water is available, the area can be reduced at the ratio of 1 dunam irrigated soil to 4—5 dunams of unirrigated soil.

9. The water resources of the area are at present limited and are being fully exploited. Deep borings may show that water is available at much greater depth than has hitherto been found, and if that be the case and the water can be made economically available, the productivity of the soil will be capable of being greatly increased and a much greater number of settlers would find room in the area.

10. Small areas are planted with table-grapes, varying from two to five dunams per family. The question whether other fruits can be planted here has not yet emerged from the experimental stage.

11. The total area worked by Jewish settlers during the year 1928-1929 was 160,000 dunams. All the settlements together possess 3,000 cows and 125,000 chickens.

12. Those settlements which have received their full equipment from the Keren Hayesod are now self-supporting. The other settlements that have not yet received their full settlement loan are most of them by now very near to the stage of being self-supporting. In this connection we mean by the term " self-supporting " that the ordinary farm expenditure and living expenditure, including renovation, but not including depreciation, nor re-payment of settlement loan, nor rent (which is not yet payable), are covered by the ordinary farm income. In this sense the following settlements in the Valley of Esdraelon are already self-supporting, viz., Nahalal, Ginegar, Balfouria and Kfar Yeheskiel.

13. Nahalal, consisting of seventy-five families, which is one of the oldest settlements in the district (founded in 1921), and on which other settlements are modelled, reports the following figures of produce sold for the year 1928-1929 :—

	Quantity sold.	Proceeds.
Milk	391,222 litres ...	£5,222.597
Eggs (ordinary)	163,275 „ ...	865.978
„ for hatching... ...	36,929 ...	474.568
Poultry	4,089 fowls ...	299.482
Grapes	53 tons ...	527.639
Vegetables	...	189.101
Fruit	...	65.133
Preserves, butter, etc ...	...	140.108
Cattle	52 heads ...	1,363.200
Grain (estimate)	...	1,212.000
	Total	£10,359.806

14. The Sales Co-operative "Tenuvah," of whose sales the Jewish settlements of the Emek contributed about 70 per cent., reports having sold during the year 1928-1929 agricultural products as follows :

	Quantity sold.	Proceeds.
Milk (fluid)	1,074,548 litres ...	£29,579
Milk (mfg.)	1,714,000 ...	33,727
Total milk ...	2,788,548 litres ...	£63,306
Eggs (number)	886,788 ...	5,246
Poultry (kg.)	48,210 ...	6,306
Bananas (tons)	157·1 ...	4,112
Grapes ,, ...	341·7 ...	3,611
Other fruit...	...	516
Vegetables (tons)	1,500 ...	11,470
Sundries (honey, preserves, etc.)	...	1,213
		£95,780

CHAPTER III

FUTURE POSSIBILITIES OF JEWISH SETTLEMENT

A. Maritime Plain

1. *Extent.*—The Joint Palestine Survey Commission in their Report on p. 22 estimate that the Maritime Plain contains :

(*a*) Plain North of Acre—light irrigable soil	24,000 d.	(old)
(*b*) Haifa Acre Plain ,, ,, ,,	11,000 ,,	
(*c*) Haifa-Vadi Sheriah ,, ,, ,,	1,175,500 ,,	
Total light irrigable soil ...	1,210,500 d.	
For same areas—		
Total heavy irrigable soil ...	1,144,000 d.	
Total irrigable soil... ...	2,354,500 d.	
Non-irrigable soil	410,000 ,,	
Total tillable soil	2,764,500 d.	
Total non-tillable soil ...	1,530,000 ,,	
Grand total ...	4,294,500 d.	

2. *Irrigable area.*—By " irrigable soil " the Survey Commission appears to mean—not soil for which water at an economic depth is to be presumed to be available—but soil which could be effectively irrigated provided that water be available. At any rate the Survey Commission does not give any definite conclusions as to possibilities of irrigation.

On p. 20 of their Report, in dealing with the Maritime Plain, the Survey Commission say :—

> " Of these (the agricultural lands of Palestine) the Coastal Plain is the most important. . . . These plain lands are, as a rule, very fertile, but a winter rainfall of only about 20 inches, and a rainless summer, limit intensive cultivation to the areas which can be irrigated. Water for irrigation, rather than the extent of land, is the limiting factor on agricultural wealth and rural population."

Again, on p. 25 they state :

> " While the Audja and Crocodile Rivers, and the many springs of the Coastal Plain are of great irrigation importance, they will after all supply a relatively small area " (this area

the Commission, on p. 25, estimate at about 210,000 dunams).

" In the main the lands of the Coastal Plain, to the extent hat they are to be irrigated, must depend upon underground sources . . .

" Mr. Blake reports underground water available at a distance of 5 to 10 kilometres from the Mediterranean, and that where the depth of well reaches shelly limestone, 40 to 80 cubic metres per hour are commonly raised."

So, too, Mr. Blake, in his Report on Geology and Water Resources of Palestine (1928), sums up his observations on p. 51, by saying :—

" Immense possibilities exist in the irrigation cultivation of suitable crops that would give profitable returns and particularly allow of a bigger export trade."

But Mr. Blake, likewise, does not give any definite conclusions as to the possibilities of irrigation.

A survey of the whole Maritime Plain with reference to the prospects of irrigation and cultivation has been made by the agricultural experts employed by the Jewish Agency, and these have come to the conclusion that the total area for which at economic depth water is actually available, but which is still unirrigated, is about 1,117,000 new dunams. If to this area be added the land already irrigated, which is estimated at about 125,000 new dunams, we get a maximum total of 1,242,000 new dunams, which is only a little over half of the area of 2,354,000 old dunams indicated by the Palestine Survey Commission as being " irrigable," that is, if water is available.

A report prepared by Mr. Goldschmidt of Tel-Aviv, a hydrological engineer, who during the last few years has made an extensive inquiry into the possibilities of irrigation of the Maritime Plain, clearly shows that of the area of 750,000 dunams between Rehovoth and Natania an area of 500,000 dunams can be irrigated if put to oranges and 390,000 dunams if put to other crops. He believes that for the other parts of the Plain the same conclusions hold good.

In this connection we may cite the following passage from a pamphlet of Dr. Paul Range, of the University of Berlin, on " Die Kuestenebene Palaestinas " (Berlin, 1922), who discusses the conditions of the underground water in the region Jaffa-Gaza and writes on pp. 13, 14 :—

" Ganz allgemein ergaben die Untersuchungen, dass fast ueberall Grundwasser zu erwarten ist. Das Kuestenland von Philistaea enthaelt also einen durchgehenden Wasserhorizont, der an der Grenze des marinen Diluviums und der

Senonkreide auftritt. Damit ist die Besiedlungsmoeglichkeit weiter jetzt noch brachliegender Landstriche ausser Frage gestellt."

("The investigations showed generally that practically everywhere underground water may be expected. The coastal land of Philistia contains, therefore, a continuous water plane which reveals itself between the marine diluvium and the Senon chalk. In this way the possibility of settlement of further lands still uncultivated is placed beyond doubt.")

The area as given by the experts of the Jewish Agency is divided approximately as follows :—

Irrigable light soil not yet irrigated ...	595,000 new dunams
Irrigable heavy soil not yet irrigated ...	522,000 ,, ,,
	1,117,000 new dunams
Lands already irrigated—estimated at	125,000 ,, ,,
Total irrigable land ...	1,242,000 new dunams
Balance of tillable but not irrigable soil	1,268,000 ,, ,,
Total	2,510,000 new dunams

which equals 2,764,000 old dunams—as per estimate of the Palestine Survey Commission cited above.

3. *Citrus Plantations.*—According to Mr. Strahorn (see p. 201 of the Report) :—

"It is felt that the absolute area of irrigated plantation in Palestine will not exceed 300,000 dunams."

As somewhat over 100,000 dunams have already been planted, and there are estimated to be areas approximating in the aggregate to 15,000 dunams fit for plantation in the Jordan Valley, Mr. Strahorn's somewhat tentative opinion would seem to leave no more than some 180,000 dunams in the Maritime Plain still available for irrigated plantations.

The experts of the Jewish Agency, however, believe that Mr. Strahorn was unduly pessimistic, and that a much larger area of the Maritime Plain comes under consideration for citrus plantations.

They point out that on p. 200 Mr. Strahorn writes that the citrus plantation zone will be almost wholly confined to areas of soils of the Deiran, Beer-Sheba and alkali-free portions of the Jericho series. The total area of the Deiran series is 461,715 dunams, and of the Beer-Sheba series (irrigable) 503,357 dunams (not 503 dunams as stated by mistake on p. 201), or a total of about 965,000 dunams. Our experts agree with Mr. Strahorn that part of the Beer-Sheba series cannot be irrigated and that

also " nasaz " land is not fit for citrus cultivation. They are, however, unable to agree with Mr. Strahorn that of a total area of 965,000 dunams, not more than about 285,000 dunams (300,000 dunams, less about 15,000 in the Jordan Valley) are fit for irrigated plantations. They estimate that of the Beer-Sheba lands, 274,000 dunams cannot be irrigated ; this would leave a balance of 690,000 dunams of irrigable land. They believe that if a reserve of 190,000 dunams for " nasaz," roads, farm-lots and lands with an unfavourable topography is left, this will be ample, and conclude that an area of 500,000 dunams is suitable for citrus cultivation. Since 110,000 dunams have already been planted, this would leave an area of 390,000 dunams as still available and suitable for citrus plantations. They estimate that this area is divided about equally between the district Hederah-Petach Tikvah-Rehovoth and the district lying south of Rehovoth.

In this connection we may also cite the following passage from the first publication of the Soil Survey of the Department of Agriculture, in " Agriculture and Soils of the Jaffa Sub-District," which on p. 9 states :—

> " Lighter soil types are found to be more suited to the orange than heavy soils, though the soil planted with oranges varies from light sand to heavy loam. The coarse textured, deep and well-drained brick-red coloured soils which are described in more detail in the chapter on soils as ' Terra Rossa,' are those most generally used for orange groves, whereas in Petach Tikvah, Sheikh Huwannis, Sarona, and a few other places, heavier marly loams of a dark brown or crushed black tint are common. . . . No definite distinction has been established between the quality of fruit grown on light and heavier land. . . . Level or gently running ground is generally held to be most appropriate to orange groves, though in recent years the increased demand for orange land has led to an extension of planting on slopes and foot-hills, as in Bnei-Brak and Ramat Gan. It may be safely assumed that this tendency will be enhanced proportionately with an increase in the density of population and a limitation of the size of holdings."

4. *Present State of Cultivation of the Undeveloped Areas and Prospects for the Future.*—The experts of the Jewish Agency, who recently surveyed the Coastal Plain, found that the portion of the land which is not cultivated at all is probably not more than about 186,000 dunams. The remainder of the land is cultivated, that is, comes under the plough once in a few years. The practice of leaving one-third fallow is widely observed.

The heavy soils are regarded by the fellaheen as the best and most productive lands for cereal growing. The light soils are cultivated in a more extensive and less economic way and give poor returns ; they are partly put to winter crops, such as wheat and barley, and partly to summer crops, such as durrah and melon ; for a large part they are put to lupines. The heavy soils under Arab cultivation are mainly put to wheat, and are estimated to yield 60 to 70 kg. per dunam. The light soils are mainly put to barley, and are estimated to yield 70 kg. per dunam.

Outside the existing groves and irrigated fields near the larger Arab villages, the hidden water resources remain untapped.

It is in this land that the experts of the Jewish Agency considered, as has already been stated above, that an aggregate area of some 390,000 dunams is suitable and still available to be planted for orange groves and grape-fruit plantations. According to the estimate of these experts the net income of one dunam of orange groves is £P.16 (see p. 82 of the " Key to the Settlement of Various Zones in Palestine "), whilst each dunam pays in wages for cultivation, picking and packing £P.8 (*cf.* Table B, p. 98, showing that 412 working days are needed for 10 dunams of orange groves).

But citrus is not the only type of plantation which can be cultivated on the irrigable soils. Thus, on the heavier irrigation soils, bananas are grown with success ; the net income of the dunam of banana grove being estimated at £P.9 (see Odlum's pamphlet on " Prospects of Banana Cultivation in Palestine," No. 11 of the Agricultural Leaflets published by the Department of Agriculture, on p. 7, showing a net return of £P.37 per acre).

There are also large possibilities for the cultivation of early vegetables as soon as the marketing problem is solved and canning factories established. In this connection an extract may be cited from the Report of the Survey Commission, which states on p. 63 :—

> " The low-lying even-surfaced areas to be found north of Joppa have great possibilities for irrigated farming, where there is a covering layer of light soil. Sooner or later means will be devised for marketing winter vegetables in Northern Europe, and this land, when irrigated, is admirably adapted to market gardening. It is also possible that canning factories may prove profitable."

As regards irrigated forage crops, the technical problems of their cultivation have been satisfactorily solved by the Experi-

mental Station of the Jewish Agency, and the area planted with these crops can be extended as soon as the markets for milk, eggs and poultry are further developed. Plans for the establishment of a condensed milk factory are now under consideration.

That there is still in Palestine itself a market for an increased agricultural production is shown by the following list of imports in 1928 :—

	£P.
Butter	26,996
Cheese	17,699
Cream	16,125
Condensed Milk	8,529
Eggs	16,007
Onions and Garlic	20,492
Potatoes	51,131

The most casual observation will show to any expert observer that there are in the Coastal Plain very considerable areas which are at present either uncultivated or under-cultivated, and which, once capital and energy can be united to exploit their possibilities, are capable of yielding a produce a hundredfold more valuable than their present crops. By this means a far closer settlement would be rendered possible, as is proved by the Jewish settlements and also by the Templar settlements.

As an example of the possibility of closer settlement, it is interesting to compare the condition of the land belonging to Petach Tikvah with the neighbouring land of Sheikh Muwannis and Gelil.

Petach Tikvah contains an area of about 32,000 dunams on which nearly 10,000 souls live and employment is found for 2,000 Arab labourers.

Sheikh Muwannis and Gelil have an area of 36,000 dunams of land of the same quality as Petach Tikvah. This land maintains 1,000 souls at a distance of only 10 kilometres from Jaffa. Yet there is no reason why under intensive cultivation this land should not maintain as large and as prosperous a population as Petach Tikvah.

Such examples could be multiplied throughout the Coastal Plain.

5. *Farm Unit.*—The desirable farm unit depends, of course, on the type of the particular soil and on the possibility of irrigation.

The experts of the Jewish Agency estimate that the minimum area of an irrigated farm, part of which is suitable for orange

plantation, is 17 to 22 dunams (*cf.* " Key to the Settlement of Various Zones in Palestine," p. 111).

Each of these units contains :—

8	dunams	of orange grove.
7	,,	of irrigated forage crops and vegetables.
2	,,	of building plot.
17	,,	total.
5	,,	reserve.
22	dunams	total.

This unit has been adopted for the settlements established or to be established by the Jewish Agency in the Maritime Plain, such as Kfar Malal and Nachlath Yehuda, which are being reorganised on this new basis, and Beth Chanan founded in 1929.

Where the whole area is suitable for citrus plantation an area of 15 dunams is considered to be sufficient for an agricultural holding.

The foregoing estimates are borne out by an investigation recently undertaken by the Central Bank for Co-operative Institutions in Palestine, Ltd., which gives the following details relating to two small-holders' settlements in the Coastal Plain :—

(*a*) The settlement *Ain Ganim*, near Petach Tikvah, mainly orange-growing ; with 54 per cent. of orange groves in full bearing ; contains 48 farms with an average of $18\frac{1}{4}$ dunams and an average annual net income of £P.246 each.

(*b*) The settlement of *Nachlat Yehuda*, near Rishon-le-Zion ; orange-growing in part only ; the orange groves not being as yet in full bearing ; contains 30 farms with an average of $20\frac{1}{4}$ dunams, and an average annual net income of £P.119 each, partly from outside labour.

6. *Room for New Settlement.*—As shown above, the total irrigable area in the Coastal Plain is estimated at 1,117,000 dunams, of which about 390,000 dunams can be planted with citrus plantations. If we take the farm unit on such irrigable soil at 20 to 25 dunams, the foregoing total irrigable area would give room for 50,000 farms.

The total non-irrigable area has been estimated above at 1,268,000 dunams. It is considered that on such soils the farm unit is 100 dunams in the north, and 200 to 250 in the south. On this basis the total non-irrigable area would allow of about 9,000 farms.

It follows from the foregoing calculations that taking the total available area of the Coastal Plain, including irrigable as well as

non-irrigable soil, but excluding the existing Jewish settlements, the figures are as follows :—

1. *Irrigable soil*—1,117,000 dunams equals 50,000 farms.
2. *Non-irrigable soil*—1,268,000 „ „ 9,000 „

Total ... ... 59,000 „

It is estimated that at present the foregoing area contains about 22,000 Arab families.

There is, therefore, room for further settlement of 37,000 families, all cultivators, leaving out of account subsidiary and allied trades and occupations which such settlements naturally attract and support.

Taking into consideration that about 2,500 families can be settled on land already in Jewish possession, it is assumed that it will be possible to buy the land necessary for such settlement—about 800,000 dunams at present uncultivated or under-cultivated—from the present owners. From past experience it can be concluded that such purchases can be effected, especially as the execution of the programme will be stretched over a long period.

The additional settlement of 37,000 families would in time more than double the present population of the Maritime Plain.

Cf. the Report of the High Commissioner on the Palestine Administration, 1920-1925, p. 33 :—

> "The extent and the rapidity of Jewish Agricultural colonisation are determined by the funds that are forthcoming, not only for land purchase, but also for the cost of settlement. They are not limited, as I have said, by land being withheld from the market. They are not limited by the country being already fully populated. On the contrary, its agricultural resources have been very poorly developed ; in course of time, and with proper methods, the country districts could support two or three times their pre-war population, or even more."

At the present time the Jewish Agency has under consideration the immediate settlement of 1,000 workers on land of the Jewish National Fund near the old Jewish colonies, Petach Tikvah, Kfar Saba, Rehovoth—each on an area of 15 dunams. The funds for this settlement scheme, calculated at about £P.375 per family, have already been raised to a large extent.

7. *Execution of this Programme.*—If the foregoing scheme can be carried through—and we have no doubt as to its feasibility—we may look forward to the time when the Coastal Plain will be covered by a succession of prosperous settlements, exploiting to

the full the natural resources of a fertile soil and the momentarily hidden water resources. Instead of remaining a waste the Coastal Plain would become covered with irrigated plantations and fields, capable of maintaining the enlarged population.

But it is obvious that it must take time to carry through such a scheme and to overcome the financial and technical difficulties connected with it.

The acquisition of an area of some 800,000 dunams, the plantation of some 390,000 dunams of orange groves, and the settlement of some 37,000 families cannot be brought about in the course of a year or two. What the Jewish Agency believes is that it would be possible to proceed with the settlement of 1,000 to 2,000 families a year in the Maritime Plain. Such settlement would be financed partly by private funds, partly by the P.I.C.A., partly by the Jewish Agency, and during the period of its gradual progress there would be ample opportunity for revising the conditions of settlement in accordance with the changing conditions of the country and the changing markets abroad, applying the lessons gained from experience and developing markets both at home and abroad.

The gradual execution of such a plan would render it also possible to adapt the Arab fellaheen slowly to the improvement and intensification of their farms, on which the scheme to a large extent depends.

It has already been shown in paragraphs 15, 16 and 17 above (Chapter II, Description of Jewish Settlements) that such evolution is possible, and is bound up with great advantages to the fellaheen. From the examples of the past, it is to be presumed that, given a free market, and the influx of capital which a steady immigration is likely to bring about, the fellaheen will gradually dispose of the major part of their light soil which is at present, and likely to remain in the future, of little use to them, unless they have the large means necessary to irrigate, and will retain the main part of their unirrigated heavy soils. Their unirrigated heavy soils they will continue to sow with cereals, whilst the irrigable light soils retained by them they will learn to cultivate intensively with the aid of the moneys which they will receive by the sale of their surplus lands.

If in the course of time the fellaheen can sell 800,000 dunams, that will involve a transfer to their pockets of an aggregate sum of not less than £P.3,000,000 to £P.4,000,000, assuming that there is no substantial further rise in the price of land.

The turnover of such an amount is bound to change the situation of the fellah in the Maritime Plain far more decisively

than can be done by the normal operations of an Agricultural Bank. In saying this, we do not desire to undervalue the advantages that can accrue from an Agricultural Bank ; but it is nevertheless to be pointed out that a bank will only be able to take into account the value of the land on the basis of its produce for the time being, which, *ex hypothesi*, would be the produce of under-cultivated land, so that the value of land is not likely to be taken at more than £P.1 per dunam. In point of fact, it may be doubted whether any Agricultural Bank likely to be established by Government in Palestine would be in a position to make loans of an average exceeding £P.50 per family. Most of this money will go to short-term credits, so that long-term credits necessary to develop orange groves, with accumulating interest at a commercial rate till the grove will reach the fruit-bearing stage, will always remain difficult to obtain.

If, on the other hand, the fellah can realise his surplus lands, obtaining for them in the course of time an aggregate sum from £P.3,000,000 to £P.4,000,000, then he would, in the first place, be able to pay all his debts, which at present are estimated at an average of £P.50 per family, or a total of £P.1,000,000 for 22,000 families, and the balance he will be able to use for the purchase of better seeds and stock, for installation of irrigation plant, for intensification of his farm, and for the plantation of orange groves.

Let us test the foregoing argument. Let us assume that the whole of the available Coastal Plain were now fully and intensively occupied and cultivated by the additional 37,000 families. Let us further assume that the present 22,000 fellaheen families had reduced their holdings in accordance with the scheme outlined above, and that the money obtained from their sales had intensified their farming. Upon that hypothesis these 22,000 Arab families would be holding between them :—

In irrigable soil (light and heavy)	...	317,000 dunams.
In non-irrigable soil	...	1,268,000 ,,

Therefore, each family would on the average hold 14 dunams irrigable soil and 57 dunams of non-irrigable soil. Fourteen dunams of irrigable soil, if reasonably well irrigated and cultivated, would alone, at present prices, bring him in anything between £P.5 and £P.15 per dunam per year according to whether they are put to forage crops or to vegetables, and £P.16 to £P.20 per dunam for the plot put under citrus cultivation. On the other hand, in the present under-cultivated state of land, the fellah is estimated to get from his extensive holding of 100

dunams an aggregate annual income of only £P.50 to £P.60, as per the analysis given under Annexe 5.

8. It is, however, to be admitted that the foregoing observations dealing with the prospects of improving the fellah's lot will, in reality, apply only to the lands which are village owned.

Where the land belongs to effendis (large landowners), and is let by them to tenants, it is obvious that, on a sale by the effendis, the tenants will not be entitled to any part of the purchase price, and, moreover, there will be the problem of where and how they are to be settled.

It is to be observed that the proportion of effendi-owned lands in the Maritime Plain is not exactly known. Estimates vary between 25 per cent. and 40 per cent. Most of the effendi-owned land, south of Vadi Havareth, is leased to the inhabitants of the neighbouring villages, who cultivate those lands in an extensive way, in addition to their own lands.

As regards the problem of settling the landless tenants, it need only be said that the Jewish Agency accepts the principle that on the purchase of land from effendis the economic position of such tenant should not become worse than before the purchase. This means that it will be incumbent on the seller or purchaser to provide for each tenant, either in the same neighbourhood or elsewhere, sufficient land for the maintenance of one family, *i.e.*, 100 to 150 dunams of unirrigated land, or 15 to 22 of actually irrigated land.

In case actually irrigated land will be put at the disposal of a tenant, we think that it will be possible to give to the tenant a long-term lease contract, instead of his former annual or biennial contract. This would enable him to make further improvements on his irrigated farm, and, we suggest, would also offer an opportunity to the Government to create credit facilities to assist him in the development of his farm.

B. Huleh

1. *Description and Area.*—The Palestine Survey Commission write on p. 61 of their Report :—

> "The largest and potentially most valuable body of agricultural land in Palestine is 34,000 acres in the basin o Lake Huleh, which drainage would make available for irrigation farming. The marginal lands are of exceptional fertility. . . . This land, if reclaimed, would have advantages found only in equal measure in the best part of the Coastal Plain. The resulting influence on the population and the wealth of Palestine would be very marked."

The area of the Huleh District is approximately as follows :—

Government land	...	...	...	47,000	dunams.
Private land	...	...	...	110,000	,,
Lake of Merom	...	...	...	18,000	,,
				175,000	,,

An area of at least 52,000 dunams is covered by swamps (see p. 154 of the Palestine Survey Report).

2. *Water.*—At present the water of the district runs to waste, with the result that, as stated by Mr. Strahorn on p. 154 of the Report : " The region is infested with the anopheles mosquito, and is regarded as the worst malaria centre in the country."

Mr. Henriques, on p. 400 of the Report, states :—

> " There is water and to spare for irrigating all the 150,000 dunams of which this plain consists. The whole of the water which feeds the Huleh Lake runs through it and out below into the Jordan."

The whole valley, " or nearly all can be watered by gravity from the springs which flow out of the hills on both sides of the marsh " (see p. 24 of the Report). Of these springs the largest are the Banias, Ledan, and Hasbani, besides which there are eighteen smaller springs coming from the East and West. All this water, which according to Mr. Henriques is sufficient to irrigate the whole area, will render a very intensive cultivation of this land possible.

3. *Cost of Irrigation.*—The cost of the work to be undertaken for draining the marshes and building canals and ditches is bound to be very high. Mr. Henriques, on p. 400 of the Report, estimated the cost at somewhat over £1,000,000, or £740,000, without calculating interest. This sum would include drainage, irrigation and deep ploughing. As this figure would mean an outlay of about £21 per dunam he recommends that, besides the Government lands, which form the swamp-ridden lands to be reclaimed, a further 100,000 dunams of the private lands should be acquired, in which case the cost of drainage could be averaged out and reduced to £P.11 per dunam.

4. *Agricultural Possibilities.*—The land of the whole district is composed of deep soil, loam at the edges and sandy loam towards the centre. The land is very fertile, and, if irrigated, suitable for many cultures, such as cereals, forage crops, vegetables and many varieties of fruit trees. Orange trees can be planted here with success, as is shown by the few orange groves that can be seen containing excellent trees. Also nut trees, date palms, mulberry trees, fig trees, olives, vines, etc.,

succeed here. There can be no question as to the exceptional agricultural possibilities of this land. (*Cf.* Palestine Survey Experts' Report, pp. 24 and 61.)

The present-day cultivation is practically entirely based on cereal growing. The average crop is estimated at 100 kg. per dunam. A part of the native population occupies itself also in mat making, the average production being two mats a day, which are sold for 80 mils. Four hundred families live mostly from the raising of cattle, sheep and camels, sowing not more than 20 dunams each.

5. *The Huleh Concession.*—As is well known, a concession for the swampy area is claimed by Salem Bey on the basis of a pre-war concession granted to him by the Turkish Government. This Turkish concession was, as a matter of fact, replaced by a new concession concluded between him and the Palestine Government in February 1924. According to the Report by H.M. Government on the Administration of Palestine and Transjordan for 1927 (p. 101): "The holders of pre-war concessions for the drainage and reclamation of the Huleh marshes failed to carry out, within the period fixed, the terms of the agreement with the Administration of Palestine for the grant of a re-adapted concession and the agreement lapsed. The holders have accordingly reasserted their right under the pre-war concession."

The point of view of the Jewish Agency is that the Government should investigate and come to a decision on the question:

(*a*) whether the concession is still valid and subsisting in view of the fact that it was replaced and therefore presumably discharged by a substituted agreement which has lapsed, and

(*b*) if it be subsisting whether it ought not to be revoked in view of the fact that the claimants have hitherto not taken any effective steps for the reclamation of the area,

and that in the event of the concession being found to be non-existent, or being revoked, the State domains of the Huleh area should be placed on conditions to be agreed at the disposal of the Agency, both because art. 6 of the Mandate requires it, and because the Agency, eventually in co-operation with the P.I.C.A., is the only body likely to find the means necessary to develop the area.

It may be mentioned that the Government has shown in the past great and, in our opinion, unjustified leniency towards the concessionaires. Although since the date of the concession or of the agreement they have not undertaken any steps to fulfil

the terms of the Concession, the Government agreed to pay them this year an amount of approximately £4,000 for certain alleged rights, and allows them to exploit their alleged fishing rights in the lake.

It may be stated that the Zionist Organisation has in the past been repeatedly approached by the concessionaires with offers to sell the concession ; but the price was considered excessive, and at the present day the Agency is of the view that the concession no longer exists.

6. *Present Population.*—The majority of the native population are tent dwellers moving from place to place. There are twenty-seven groups comprising 2,075 families. Most of the families are small, the mortality rate being very high. There is hardly any natural increase.

Of the private land, about 65,000 dunams belong to Syrian landowners. On their land 1,085 families are tenants who pay a rent of 37½ per cent. of the crop, the landowner paying the tithes. The remainder of the land is owned by the cultivators : 900 families owning about 45,000 dunams, that is an average of about 45 dunams per family. These latter also lease part of the lands of the effendis.

7. *Possibilities of Future Settlement.*—The Huleh Plain, after being drained and irrigated, can make possible a very close settlement based either on forage crops and mixed farming, or on fruit plantation, oranges, bananas, nuts, grapes, etc. The Agency's experts have estimated that on irrigated heavy soil of this type a farm of 25 dunams will be sufficient for a family, and they calculate an average net income of £200 per family (see p. 42 of the " Key to the Settlement of Various Zones in Palestine "). On the irrigated light soil a unit of 22 dunams is adopted (see para. 5, p. 34).

The total area of the Plain which is fit for cultivation after the deduction of the area needed for roads, canals and building plots is estimated at 140,000 dunams, of which 40,000 dunams consist of heavy soil, at present covered by marshes, and 100,000 dunams of light soil.

Thus it will be possible to settle in the Huleh area :—

On the heavy soil ...	40,000 dunams	1,600 farms.
On the light soil ...	100,000 ,,	4,545 ,,
Total	140,000 ,,	6,145 ,,
The present number of families is		2,075
Room for additional settlement		4,070 ,,

The Lake of Merom will also be reclaimed in part, and will make room for the settlement of several hundred additional families.

Therefore the total number of families for the settlement for which room can be found in the Huleh area may be estimated at about 4,400.

C. The Beisan Lands

1. Under the above title we shall deal not only with the Beisan-Chiftlik, but also with the Semakh-Chiftlik and with the Miri Land to the south of both Chiftliks.

2. *Area.*—The figures arrived at by the Experts of the Jewish Agency did not quite tally with those of the Palestine Survey Commission. The Palestine Survey Commission, taking the Spring " Humra " as the southern boundary of the Beisan District, arrived at the following areas (p. 22) :—

> Plain of Jordan, east side, south of Lake Tiberias (*i.e.*, Semakh area)—gross area, 30,000 dunams ; irrigable, 24,000 dunams.
>
> Plain of Jordan, west side, Tiberias to Beisan (*i.e.*, Beisan area)—gross area, 177,000 dunams ; irrigable, 71,000 dunams.
>
> Totals—gross area, 207,000 dunams ; irrigable, 95,000 dunams.

The reason which led the Survey Commission to take the Spring " Humra " as the southern boundary is unknown. There appears to be as good irrigable land south of that Spring. For the purpose of the present Memorandum the Beisan area is taken to include an additional 67,000 dunams south of the Spring " Humra "—in particular the lands called " Humra " (11,136 dunams), Campanie (10,000 dunams), and Tubas (35,000 dunams), most of which lands are irrigable.

On the foregoing basis the experts of the Jewish Agency have estimated that the total irrigable area of the District of Beisan and Semakh is 140,000 dunams. They also arrived at a larger non-irrigable area than did the Survey Commission. On the basis of a detailed map, they have made a computation showing that the area of Beisan and Semakh is composed as follows :—

Irrigable area	... ...	126,020 dunams.
Partly irrigable	... ...	108,500 ,,
Non-irrigable	... ...	136,450 ,,
Total	... ...	370,970 ,,

The Government estimate of the Chiftlik land is as follows:—

Semakh	...	...	...	...	...	20,416 dunams.
Beisan	...	...	...	...	...	302,000 ,,
			Total	...	...	322,416 ,,

The experts of the Jewish Agency divide the land as follows :—

(*a*) *Semakh-Chiftlik.*

This can be irrigated almost entirely.

Cf. Henriques on p. 401 of Palestine Survey Report :—

> " The area of 30,000 dunams bounded by the Jordan on the west, the Lake of Tiberias on the north, the Transjordan Hills on the east, the Yarmuk River on the south, is particularly well-adapted to irrigation."

This whole area consists of light deep soil, containing free lime.

Cf. Mr. Strahorn on p. 179 of the Survey Report :—

> " The texture, structure and drainage conditions of this soil are well adapted to all forms of agriculture."

(*b*) *Beisan-Chiftlik.*

Mr. Henriques estimated the areas that can be irrigated at 37,000 dunams (p. 406 of Report), and at 12,000 to 15,000 dunams (p. 401 of the Report), a total area of about 50,000 dunams.

On the other hand, on p. 22 of the Report, the Commission estimate the total irrigable area at 71,000 dunams.

The experts of the Jewish Agency, who add the lands south of the " Humra " Spring, estimate the irrigable area of the Beisan-Chiftlik at 113,000 dunams and the non-irrigable area at 94,600 dunams.

Of this area the greater part—some 99,000 dunams—consists of a type of soil similar to that of Semakh and suitable for the same variety of cultures.

Mr. Strahorn gives on p. 183 of the Palestine Survey Report the following description of the Plain of Beisan :—

> " The surface soil is predominantly a dark, dull, greyish brown silt loam which carries a small amount of limestone gravel. . . . The surface of this soil is very uniform and slopes to the East. The Eastern boundary is an eroded terrace where the surface descends several metres to their soils. Drainage conditions are good except within the swamps. Traces of alkali salts are present throughout the area of this type, but no harmful amounts were observed. . . . This type is being dry farmed to cereals and irrigated for fruits and vegetables. The dry farmed areas are scattered throughout the area of the type, and there is a considerable

extent of land untilled. Water is available for more land than is now under irrigation . . . . from the facts that no impervious structures have been noted to a depth of at least 2 metres, and that excellent drainage is afforded by the steep terraces along the Eastern boundary of the type, the inference is that unsatisfactory drainage conditions will probably not develop. Under such conditions, the possible crop range is nearly unlimited."

The area also contains some 108,500 dunams stretching towards the Northern hills, and consisting of deep clay soils, which, as far as irrigable, are suitable for forage crops and vegetables, but not for citrus culture. Of these, about 14,000 dunams can be irrigated with the existing water supply.

(*c*) *The Slopes and Height to the North of the Haifa-Semakh Railway Line.*

This area consists of 136,450 dunams of non-irrigable soil—a heavy deep soil which requires amelioration.

3. *Irrigation.*—The water for irrigation can be obtained partly from Lake Tiberias and the Jordan, and partly from thirty-five springs in the Beisan-Chiftlik. These springs are mostly small springs, but there are ten large springs which have been recorded by Mr. Blake on p. 32 of "Geology and Water Resources of Palestine." The quantity of water of these springs has been measured at various times by the experts of the Agency, and, according to their calculation, the total quantity of water fit for irrigation purposes amounts at the end of the season to 12,310 cubic metres an hour, or 295,440 cubic metres a day. This conclusion is well within the estimate of Mr. Blake, who computes ("Geology and Water Resources of Palestine," *loc. cit.*) the total quantity of the ten principal springs (excluding the Ain Harod which serves Jewish Settlements) at 72,000,000 gallons per day, or about 325,000 cubic metres a day. Mr. Blake, in a note on the page above cited, remarks that—

"the height of the springs is such that the whole of the water could be used for irrigation by gravitational methods."

The water from the springs is sufficient for the irrigation of about 55,000 dunams. The remainder of the land bordering on the Jordan will be irrigated from the Jordan.

4. *Farm Unit.*—Under the "Key to the Settlement of Various Zones in Palestine" (on pp. 40—42), the desirable farm unit in this area is fixed at 23 dunams in the case of irrigated soil. The Key presupposes that such irrigated land would be used entirely for forage crops. It is, however, probable that part of each farm can be put to fruit plantations, such as bananas, grape-fruit and date palms.

The area suitable for farms of this type is estimated as follows:—

Semakh	27,000	dunams.
Beisan	99,000	,,
Total	126,000	,,
Less 10 per cent. for roads	12,600	,,
Net Total	113,400	,,

This area would allow of the establishing of 972 farms in Semakh, 3,564 farms in Beisan, or an aggregate total of 4,536 farms of 25 dunams each.

In the partly irrigable area of 108,500 dunams mentioned above under (*b*), the farm unit is fixed at 100 dunams, viz. :—

82 dunams of non-irrigable soil, fit for cereals,
and 14 ,, for irrigated forage crops and vegetables.

This area of 108,500 dunams, less 10 per cent. for roads, *i.e.*, a net area of 97,700 dunams, allows of the settlement of 977 farms of 100 dunams each.

Of the non-irrigable area of 136,450 dunams mentioned above under (*c*), the farm unit is fixed at 130 dunams. If 10 per cent. be deducted from the gross area the net area left will be 122,000 dunams, which will allow of the establishment of 819 farms of 150 dunams each.

5. *Present Population and Cultivation.*—Since the Census of 1922 the agricultural population of the Beisan and Semakh Chiftliks has hardly increased, although there has been an increase in the population of the towns of Beisan and Semakh.

The experts of the Agency have taken the 1922 Census as the basis for their calculations, and have added 10 per cent. as an outside figure for the natural increase, and on this basis they have estimated the number of families of present cultivators as follows :—

Semakh-Chiftlik	145	families.
Beisan-Chiftlik (irrigated)	1,585	,,
Beisan-Chiftlik (non-irrigated)	540	,,
Miri Land	456	,,
	2,726	families.

Notwithstanding the Beisan Land Agreement, the cultivation of the Chiftlik Lands has not changed during the last ten years. Although the fellaheen have become proprietors of the land, yet most of the land remains waste and the greater part of the water is allowed to run unused into the Jordan.

The experts of the Agency estimate that not more than 20 per cent. of the irrigable area of 140,000 dunams described

above is cultivated to-day, the rest being covered with thorns and weeds. It is interesting to note that the Miri lands which have long been the private property of the villages are much better cultivated—probably up to 60 per cent. This in itself lends support to the widely spread conviction that the Chiftlik lands were distributed without regard to economic needs, and the cultivators given far larger holdings than they could reasonably be expected to cultivate. The only improvement in the Chiftlik lands has been brought about by some effendis from Jerusalem and Ramallah who bought 800 dunams on which they planted bananas.

6. *Possibilities for Future Settlement.*—Taking the figures above indicated of (*a*) the number of farms that the various lands could hold if intensively developed, and (*b*) the number of farms which they at present hold, we arrive at the following results :—

No. of Possible Farm Units.

Semakh-Chiftlik	27,000	dunams	972 farms.
Beisan Lands (irrigable) ...	99,000	,,	3564 ,,
,, ,, (partly irrigable)	108,500	,,	977 ,,
,, ,, (unirrigable)	136,450	,,	819 ,,
	370,950	,,	6,332 ,,

Present Rural Population.

Number of farms existing :—

Semakh	145	
Beisan (Chiftlik)	1,585	
,, (Miri)	456	
,, (Unirrigable)	540	2,726 farms.
Room for additional settlement, about ...		3,600 farms.

Many of the present Arab holders have offered to sell part of their land in a measure sufficient to render the additional settlement of 3,600 new families possible.

D. The Lower Jordan Valley

1. Information about the possibilities of settlement in the Lower Jordan Valley is scarce and incomplete.

The Palestine Survey Commission write on p. 21 of their Report :—

> " The climate of the Jordan Valley makes it possible to produce, under irrigation, sugar-cane, bananas, dates, alligator pears, and all kinds of citrus fruits. . . . Most of the land is now used for pasture by nomadic flocks. . . . Only a small fraction of . . . the lower Jordan Valley can be irrigated."

And again on p. 24 :—

> " The irrigated area around Jericho can be extended by clearing out and more economical use of the springs above the city, and the same result will follow the drainage of the marshes East of the Dead Sea. With the full development of the potential water power of the Jordan, the low-lying fertile lands along the river will be brought under irrigated culture, but sufficient information is not now available to determine the extent. One thing, however, seems assured, that the water supply will be ample for all the land that can be reached with lifts that are commercially possible."

Mr. Ryerson, on p. 251 of the Report, believes that irrigation by gravity would require a canal about sixty miles long. He considers that under present returns on agriculture the cost of such a system could probably not be justified on a purely business basis, but that

> " as a permanent national improvement to be made, and costs written off, it may be worthy of consideration at some later date."

Owing to Mr. Strahorn having condemned most of the land as too alkaline (pp. 180–182), the Survey Commission estimated only 30,000 dunams as irrigable (see p. 22).

Yet history testifies to the fact that Jericho, once known as " The City of Palms," was in old times an exceedingly prosperous region—" the gateway of a province, the emporium of large trade, the mistress of a great palm forest, woods of balsam and very rich gardens " : see George Adam Smith's " Historical Geography," 22nd edition, p. 22, and Colonel Sawer's " Review of the Agricultural Situation in Palestine," p. 7. And Mr. Ryerson writes, on p. 351 of the Report, that the climate of the Jordan Valley is apparently well adapted to the production of fine dates, and further, that if a gravity canal is feasible the growing of dates would undoubtedly prove one of the profitable crops for the large areas of land lying above and on both sides of the Jordan River, and that a study should be made as to whether the concentration of salts is too great for the date palm, which is more tolerant of alkali than many other fruit trees. He adds, on p. 362, that the market for the better grades of dates is very satisfactory and that the question of marketing would not be serious. In his view " the supply of water for irrigation is the decisive limitation at the present time." It, therefore, appears reasonably clear that, given irrigation and confining oneself to plantations suitable to alkaline soil, there is far more land available than the Survey Commission allows.

2. *Area.*—For the purpose of this Memorandum we define the Lower Jordan Valley as the area between the Judean Hills to the

West, Tel-El-Sidra to the North, the Jordan to the East and the Dead Sea up to and including Ain Fescha to the South. This area contains two plains—the Upper Plain at the foot of the Judean Hills and the Lower Plain bordering on the Jordan. Leaving out of account the hills in these two Plains, we find the net area of the Plains which could be cultivated to be :

Lower Plain	... ...	49,000 dunams.
Upper Plain	... ...	203,000 ,,
		252,000 ,,

All these soils are naturally fertile, but the fertility of most of them is limited by their alkaline contents which render the cultivation of most cultures impossible.

The experts of the Agency agree, however, with Mr. Ryerson that this soil under irrigation is quite suitable for the cultivation of excellent date palms, for which the history of Jericho furnishes sufficient evidence. The dates grown at Jericho at the present time are of excellent quality, and a good date palm there brings in a net income of 500 mils a year.

3. *Irrigation.*—Apart from the Jordan there are ten springs from the Judean Hills and three small springs in the Lower Plain that would be available for irrigation purposes. Their total yield by the end of the season is computed by the Agency experts at 5,862 cubic metres an hour or 212,688 cubic metres a day.

Mr. Blake, on p. 51 of his " Geology and Water Resources," gives the following quantities :

Ain Feschka and other springs	...	30,000,000 gallons.
Ain Auja, etc.	...	25,000,000 ,,
Farah Springs	...	25,000,000 ,,
Total	...	80,000,000 ,,

which equals about 350,000 cubic metres a day.

To be on the safe side we take the lower figure of the Agency experts.

It is clear that this amount of water is not sufficient to irrigate the whole Plain. We calculate that if the area were closely settled to its utmost extent it would require no less than 857,120 cubic metres of water per day for irrigation. Taking the water available from the present springs at 216,688 cubic metres a day, we are faced with a daily deficit of 640,440 cubic metres. This deficit can only be made up from the Jordan.

In this connection we may cite the following passages from a pamphlet of M. Ch. Audebeau Bey, a well-known Egyptian expert, on " La Vallée du Jourdain " (Paris, 1927) :

" Le Jourdain seul est capable de donner la quantité d'eau suffisante et, vraisemblablement, le problème de l'adduction de ses eaux sur les plaines stériles a captivé l'attention des anciens âges. Il faut reconnaitre que sa solution n'est pas aisée " (p. 28).

" Pour irriguer par gravité les plaines comprises entre les montagnes qui enserrent la vallée du Jourdain, il faudrait creuser deux grands canaux passant aussi près du pied des montagnes que le comporterait de niveau à la prise. Ces canaux de première catégorie en alimenteraient d'autres d'importance décroissante jusqu' aux rigoles des champs. A cause de la grande hauteur des plaines a desservir, la prise de ces deux grands canaux devrait se trouver dans le premier parcours du fleuve et aussi près du lac de Tiberiade que le permettrait l'émenagement hydro-électrique de cette région " (p. 29).

Professor J. W. Evans, of London, who carried out during the months of January-March, 1928, a geological investigation of the lands to the North and West of the Dead Sea, on behalf of the Palestine Mining Syndicate, Ltd., also examined the possibilities of irrigation of certain lands within the area and concluded that by tapping the underground water flowing from the West towards the Dead Sea,

" a good supply of water would be found at a moderate depth not exceeding say a hundred metres. . . .There would, therefore, be a considerable supply of water available for irrigation and a large area might be cultivated. The Bukeia plateau which lies within the concession seems especially suitable for the purpose. It is from 300 to 360 metres above the Dead Sea, occupies an area of about 32 square kilometres and includes important phosphatic deposits. Elsewhere there are smaller tracts of a similar character which would be irrigated in a similar manner." (See an extract from his Report under Annexe 7.)

4. *Unit of Settlement.*—The Agency experts consider that the area can be settled on the basis of a farm unit of 21 dunams deriving its main income from the cultivation of the date palm. They are also of the opinion that in most places it is possible to find parts which are less alkaline and which will be suitable for the cultivation of bananas, forage crops, and various varieties of vegetables. They, therefore, suggest that a typical farm would be composed as follows :—

Date palms	9	dunams.
Bananas, forage crops and vegetables... ...	5	,,
Courtyard	2	,,
Reserve	5	,,
Total	21	,,

Such a farm would, in their opinion, bring in a net income of about £200 to £250. The total quantity of water needed would be 80 cubic metres a day for 300 days, or 24,000 cubic metres per year.

5. *Possibilities of Future Settlement.*—As shown above, the total area of the Lower Jordan Valley which may be capable of cultivation is 252,000 dunams. Deducting 10 per cent. for roads, etc., we get a balance of 225,000 dunams. If the farm unit of 21 dunams is feasible, it would be possible to establish in the area 10,713 farms. For this number of farms there would be required water for irrigation to the amount of 857,120 cubic metres a day, which is the figure mentioned above.

Taking 9 dunams of date palms per farm and about 33 palms to the dunam, the area, if closely settled to its fullest extent, would contain about 3,214,000 date palms, that is to say, about 25 per cent. of date palms to be found in Egypt, where these trees are reckoned to be a profitable cultivation and the area of their cultivation is still being increased.

The present native population of the Valley is composed of 1,200 souls at Jericho and seven groups of tent dwellers, aggregating about 1,900 souls, altogether 3,100 souls or 775 families. They cultivate at the present day about 1,500 dunams of plantation, mostly bananas, and 20,000 dunams of cereals. All the rest of the land is waste. Even the Ain Farah lands, with an area of about 75,000 dunams which were distributed under the Beisan Land Agreement, are mostly waste; only about 12,200 dunams are cultivated by about 200 families. It would, therefore, appear that the land, fully developed, could hold 10,713 families, which would mean that, in addition to the existing 775 families, room could be found for about 9,900 families.

E. Summary

Summarising the above we find that without taking into account the possibilities of settlement in the hill country, in the Negev and in Transjordan, there can be found room in Palestine for additional settlement as follows :—

(*a*) In the Maritime Plain	on	800,000	dunams	37,000	families.
(*b*) In the Huleh District	,,	100,000	,,	4,400	,,
(*c*) On the Beisan Lands	,,	200,000	,,	3,600	,,
(*d*) In the Lower Jordan Valley	,,	210,000	,,	9,900	,,
Total ...		1,310,000	,,	54,900	,,

ANNEXE 1

JEWISH AGRICULTURAL SETTLEMENTS IN PALESTINE

Name of Place.	Year of Establishment.		Total Population.	Total Area in Dunams	Orange Groves in Dunams	Ownership of Land.
I. Coastal Plain						
1. Mikveh Israel... ...	1870		383	2,384	338	P.I.C.A. Concession.
2a. Nahalath Yehudah ...	1913	*	173	763	189	JNF.
2b. ,, ,, G.G.		*	29	75		JNF.
3. Rishon-le-Zion ...	1882	*	2,276	35,575	3,124	P.I.C.A.
4. Shivath Zion	1908	*	180	93		JNF.
5. Beer Yaakov	1911	*	225	2,227	507	Private.
6a. Ness Ziona and Environs	1882	*	930	9,429	6,414	P.I.C.A.
6b. Kfar Aharon	1925	*	48	319		Private.
7. Beth Chanan	1929	*	40	880		JNF.
8. Rehovoth	1890	*	2,790	22,960	6,282	Private.
9. ,, Shaarayim	1900	*	243	401		JNF.
10. ,, Schiller group	1927	*	26	384		JNF.
11. Ekron	1884		396	14,269	214	P.I.C.A.
12. Gedera...	1884		235	7,097	140	JNF and Private.
13. Beer Tuvia	1896		12	5,606		JNF Destroyed.
14. Ruhama			14	5,621		Private.
15. Ben Shemen	1923	*	135	2,535		JNF.
16a. Shehunath Borochov	1924		316	976		JNF.
16b. ,, ,, G.G.			30	50	2,782	JNF.
17. Ramath Gan	1920	*	1,675	2,778		Private.
18. Bnei Brak	1924	*	1,000	1,470	989	Private.
19a. Petach Tikvah ...	1878					
19b. ,, ,, G.G. ...		*	9,000	30,450	12,237	P.I.C.A. and Private.
19c. ,, ,, Hatchiya	1926					
19d. ,, ,, Kfar Shimon					490	
20. Mahane Yehudah ...	1906	*	304	589		
21. Kfar Ganim	1926	*	320	2,958	1,160	Private.
22. Ein Ganim	1908	*	90	2,500	789	Private.
23. Raanana	1924	*	530	692	1,463	Private.
24. Ramatayim	1925	*	37	543	452½	Private.
25. Kiryath Shaul ...	1923	*	26	260		Private.
26. Ir Shalom	1928	*	230	2,000		Private.
27. Herzlia	1925	*	1,000	14,050	2,690	Private.
28. Natania	1928	*	60	11,000	2,200	Private.
29. Gan Hayim	1928	*	65	3,500	1,500	Private.
30. Calmanya	1927	*	50	1,320		Private (The area of their orange groves is included under "Unspecified" and under Kfar Saba.)
31. Gan Hasharon ...	1928	*	35	950		Private
32. Gan Rachel	1926	*	—	700	200	Private.
33. Tel Mond	1929	*	90	13,000	1,000	Private.
34. Hadar	1928	*	40	4,000	338	Private.
35. Magdiel	1925	*	674	4,822	1,496½	Private.
36. Kfar Saba	1892	*	1,050	7,245	2,070	Private and P.I.C.A.
37. Kfar Mala	1923	*	161	2,552	4,436½	JNF.
38. Gan Shemuel ...	1893	*	54	918	65	JNF.
Carried forward			24,983	228,971	49,557½	

JEWISH AGRICULTURAL SETTLEMENTS IN PALESTINE

Continued.

Name of Place.	Year of Establishment.	Total Population.	Total Area in Dunams	Orange Groves in Dunams	Ownership of Land.
Brought forward		24,983	228,971	49,557½	
39. Kerkur Ahuza ...	1913	* 200	15,000		Private.
40. ,, S.S.	1925	* 32	1,560		JNF.
41. ,, G.G.	1913	* 31	2,100		JNF.
42a. Hedera	1891	* 1,600	50,000	4,630	Private and P.I.C.A.
42b. ,, G.G.		* 16	88		JNF.
49c. ,, Bahliel ...	1912	* 228			JNF.
43. Pardessana	1928	* 100	18,000	1,530	P.I.C.A.
44. Benyamina	1923	381	17,939	700	P.I.C.A.
45. Zaraniya		22	4,100		P.I C.A.
46. Cæsarea		46	33,839		P.I.C.A. Concession.
47. Shefeya	1891	176	2,058		P.I.C.A.
48. Bath Shelomo ...	1891	52	8,948		P.I.C.A.
49. Zikhron Yaakov ...	1882	1,360	15,872	449	P.I.C.A.
50. Athlith	1909	231	8,102		P.I.C.A.
51. Givath Ada	1902	127	11,406		P.I.C.A.
Unspecified ...				1,092	
Total		29,585	417,983	57,958½	
II. Hills near Jerusalem					
1. Hulda	1911		2,018		JNF, destroyed.
2. Kefar Uriyah ...	1912		4,821		JNF and Private, destroyed.
3. Har Tov	1896		4,955		Private.
4. Kiryath Anavim ...	1921	* 63	4,025		JNF.
5. Motza	1894		623		Private, destroyed
6. Emek Arazim ...			53		Private, destroyed.
7. Ataroth	1924	* 63	1,417		JNF.
8. Neve Yaakov ...	1925	114	139		Private.
Total		260	18,031		
III. Plain of Jezreel					
1. Haifa, G.G.			150		JNF.
2. Kfar Hassidim ...	1924	* 367	10,103		JNF.
3a. Yagur, G.G. ...	1924	* 175	3,109		JNF.
3b. "Nesher"—Yagur ...	1925	149	3,467		Private.
4. Kfar Yehoshua ...	1927	* 177	5,520		JNF.
5. Zikhron Avraham ...	1925	* 12	10,126		Private.
6. Sheikh Abreikh ...	1925	* 45	1,089		JNF.
7. Kefar Barukh ...	1927	* 163	3,484		JNF.
8a. Jeda-Manor	1925	190	5,546		Private.
8b. Jeda	1925	56	3,154		Private.
9. Beth Shaarayim, S.S.		* 10			
10. Sharona, G.G. ...	1927	* 44	2,250		JNF.
11. Hasharon, C.G. ...	1927	* 45	2,250		JNF.
12. Gebath, C.G.	1927	* 73	4,135		JNF.
13. Gevath (Z. O. Experim. Station	1927	* 13	1,300		JNF.
14. Mishmar Haemek ...	1927	* 121	5,270		JNF.
15a. Nahalal	1921	* 411	8,033		JNF.
15b. ,, (Agric. School)		* 82	500		JNF.
Carried forward		2,133	69,477		

JEWISH AGRICULTURAL SETTLEMENTS IN PALESTINE

Continued.

Name of Place.	Year of Establishment.		Total Population.	Total Area in Dunams	Orange Groves in Dunams	Ownership of Land.
Brought forward			2,133	69,477		
16. Afuleh...	1922		950	13,665		
17. Merhaviyah S.S. ...	1923	*	234	7,364		JNF.
18. ,, C.G. ...	1911	*	57	3,000		JNF.
19. Balfouria	1919		352	12,992		Private.
20. Kfar Yeladim ...	1924		115	975		Private.
21. Tel Adashim	1923	*	217	7,667		JNF.
22. Kfar Gideon... ...	1924	*	125	3,759		JNF.
23. Mizrah...	1924	*	77	4,100		JNF.
24. Sarid	1927	*	61	4,041		JNF.
25. Ginegar	1923	*	113	3,000		JNF.
26. Kfar Yeheskiel ...	1922	*	299	4,563		JNF.
27. Ein Harod	1921	*	403	8,850		JNF.
28. Tel Yoseph	1921	*	208	5,723		JNF.
29. Hefzi-Ba (Beth Alpha)	1922	*	54	2,150		JNF.
30a. Hashomer Hazair (Beth Alpha)	1922	*	134	3,499		JNF.
30b. Beth Alpha (School)			55	123		JNF.
31. Geva	1921	*	92	2,468		JNF.
Total			5,679	157,416		
IV. Lower Galilee						
1. Kfar Tabor	1920		242	16,022		P.I.C.A.
2. Shezera	1909		199	12,156		P.I.C.A.
3. Mizpah	1908		59	2,541		P.I.C.A.
4. Kfar Hittim	1923	*	121	2,469		JNF.
5. Migdal...	1910		167	6,600	106	Private.
6. Settlement near Tiberias			22	4,500		P.I.C.A.
7. Kinnereth Moshava ...	1908		96	1,955		P.I.C.A.
8. Yemenites (Kinnereth)			35	65		P.I.C.A.
9. Kinnereth C.G. ...	1910	*	109	2,300		JNF.
10. ,, Hill ...	1921		8	1,600		JNF.
11. Degania A	1910	*	106	2,250	4	JNF.
12. ,, B	1920	*	102	1,825	18	JNF.
13. Kfar Gan	1926	*	38	1,486		JNF.
14. Gesher Nahalim ...	1923		66	4,100		P.I.C.A.
15. Menahamiya	1902		98	15,315		P.I.C.A.
16. Beithanya	1913		40	914		P.I.C.A.
17. Yavniel	1902		385	24,435		P.I.C.A.
18. Beith Gan	1904		146	9,035	128	P.I.C A.
Total			2,039	109,764		
V. Upper Galilee						
1. Rosh Pinah	1882		446	14,196		P.I.C.A.
2. Machanayim	1918		71	2,334		P.I.C.A.
3. Ayeleth Hashachar ...	1919		67	4,666		P.I.C.A.
4. Mishmar Hayarden ...	1890		103	9,178		P.I.C.A.
5. Yesod Hamaalah ...	1883		162	11,396		P.I.C.A.
6. Tel Hai and Kfar Gileadi	1917		151	6,107		P.I.C.A.
7. Giveath Hahozvim ...	1924		22	10		P.I.C.A.
8. Metullah	1926		172	9,628		P.I.C.A.
9. Ein Zeithim	1891			6,017		Private, destroyed.
Total			1,194	63,532		

RECAPITULATION

Name of place.	Number of settlements.	Total population.	Area in dunams.	Orange groves in dunams.
I. Coastal Plain	51	29,585	417,983	57,958½
II. Hills near Jerusalem	8	280	18,031	
III. Plain of Jezreel	31	5,679	157,416	
IV. Lower Galilee	18	2,039	109,764	128
V. Upper Galilee	9	1,194	63,532	
	117	38,777	766,726	58,086½

Note.—Most of the information is based on the 1927 " Census of Jewish Agriculture." New data of the present position are given in respect of (1) Zionist settlements; and (2) Settlements located in the Maritime Plain, and marked with a *.

This table has been compiled from various sources; the totals given above are therefore not entirely exact.

C.G. — Co-operative Group.

G.G. — Girls' Group.

S.S. — Smallholders' settlement.

Annexe 2

Prices of Land in Palestine

1. In the year 1872 Sursoek bought his land in the Valley of Esdraelon at 8 Turkish piaster (equals about 72 mils.) per dunam.

2. In the years 1880-1900, prices paid for land by the Jews in the Coastal Zone and Galilee were from frs. 8 to frs. 20 per dunam (320 to 800 mils.).

3. The prices paid by Jews from 1905 till 1929 were as follows :—

Year of purchase.	Settlement.	Area bought.	Price paid.
1905	Dagania } Kinnereth }	... 6,000 dunams	frs. 20
1910	Merhavia ...	... 9,500 ,,	,, 44
1912	Kfar-Uriah ...	... 4,800 ,,	,, 30
1912	Kfar-Malal ...	... 4,100 ,,	,, 25
1913	Kiriath-Anavim	... 1,800 ,,	,, 30
1913	Kerkur ...	... 11,000 ,,	,, 27
1914	Rabieh ...	... 3,600 ,,	,, 35
1921	Nahalal ...	... 21,700 ,,	£P.3
1921	Ginegar ...	... 4,470 ,,	,, 3
1921	Tel-Adashim ...	... 21,500 ,,	,, 3
1921	Nouris ...	... 30,000 ,,	,, 6.50
1922	Raanana ...	... 8,900 ,,	,, 2
1922	Yadjur... ...	... 7,000 ,,	,, 6.50
1922	Kubeibe ...	... 5,000 ,,	,, 5
1924	Magdiel ...	... 5,800 ,,	,, 3
1925	Gelil	... 8,800 ,,	,, 6.50
1926	Zarnouga ...	... 2,600 ,,	,, 10
1927	Sheira (Petach-Tikva)	477 ,,	,, 13.50
1928	Nahlat-Yehuda	... 360 ,,	,, 15
1929	Beisan	... 3,778 ,,	,, 4.25

Annexe 3

Income of a Typical Farm of a Fellah

30 dunams wheat, ca. 50 kg.	£P.12
10 ,, barley, ca. 60 kg.	3
10 ,, hersenneh	4
30 ,, durrah	6.50
10 ,, sesame	3
800 litres milk	12
1,000 eggs	5
Outside labour	12
Total	£P.57.50

ANNEXE 4

EXTRACT FROM A PROVISIONAL REPORT BY DR. J. W. EVANS FOR THE PALESTINE MINING SYNDICATE DURING THE MONTHS JANUARY—MARCH, 1928.

WATER SUPPLY NORTH AND WEST OF THE DEAD SEA

In the Jordan Valley there is a succession of wells in a north-north-west and south-south-east direction, including Ain Auja, Ain ed-Duk, Ain es-Sultan and Ain Hajla. This may represent a line of faulting which brings an impervious bed in the path of water flowing through a pervious stratum. The water then reaches the surface through the fault fissure. There is nothing decisive to show whether the water, which is comparatively free from mineral contents, comes from the west or the east, or from the north-west along the line of the fault itself. The important question of the flow and distribution of water below the floor of the Jordan Valley might be satisfactorily solved by the investigation of the distribution of the electrical conductivity of the strata below the surface by tracing the equipotential lines, when an alternating current is passed between two conductors in electrical contact with the coil.

The occurrence of springs containing a considerable amount of calcium sulphide, but not much sodium chloride on the west of the Dead Sea, is of great interest. The spring known as Ain el-Jeheiyir, west of Rujm el-Bahr, may be classed with these, as it also contains much sulphate of calcium in solution, but it is separated from the others, so far as my observations went, by a distance of about 8 kilometres without visible springs. Near the Wadi Kumran, along the north-west coast of the Dead Sea, however, there are numerous springs in the plain, which rapidly narrows to the southward as the cliffs approach the sea. The ruins of a conduit on the Pliocene Terrace appear to indicate also the former presence of a spring halfway up the cliffs, but it is now dry. The springs on the plain below the cliffs continue as far as Ras Feshka. Some of these deliver a large volume of water, and, in spite of the calcium sulphate it contains, it is still potable for animals. The springs appear to come, not from isolated channels, but from a pervious bed below the Cenomanian dolomitic limestone of the cliffs and to rise in the fault fissure at their base. In the case of Ain Feshka the individual springs emerging at the foot of the cliffs unite to form a considerable river.

Beyond Ras Feshka there are more springs, which continue as far as the well-known spring of Ain Ejid. Then there are, I understand, no more till the plain at the mouth of the Wadi Mukhauwat and north of Jebel Usdom is reached. Here there are a number of springs which have little taste of salt, and at which animals drink freely.

It is probable that there is a flow in the pervious bed, even when there are no springs visible, and that then the water enters the Dead Sea below its surface instead of emerging in the alluvial plain on its margin.

All these springs appear to come from the high ground in the neighbourhood of Jerusalem, where the rain sinks into the limestone rocks till it reaches an impervious stratum or a level at which the rocks are saturated, and then flows outwards towards the Jordan Valley and the Dead Sea. There is, as a rule, but little dip in the strata, but there are well-marked lines of faulting striking approximately north and south or north-north-east and south-south-west with the downthrow to the east. They are sometimes accompanied by a local westerly dip in the neighbourhood of the faults, especially on the west of them.

By these successive faults the water descends to the level of the Jordan and the Dead Sea. The dolomitic Turonian and Cenomanian is comparatively impervious, except where the joints and faults allow it to pass. Below the dolomite there is apparently a more pervious stratum containing gypsum and hydrated sulphate of calcium, and this appears to have been largely followed by the water which ultimately issues in springs on the western margin of the Dead Sea.

There are two ways in which this spring water might be made available.

The first is to irrigate the flat ground on the western margin of the Dead Sea. This margin will be considerably extended if, as proposed, practically

the whole of the Jordan water is to be employed for irrigation purposes, so that it will never reach the Dead Sea, which must then slowly contract. A lowering of only 5 metres would expose a large area, for the margin of the sea is comparatively shallow. The water from the springs would first be employed to wash away the salt left by the Dead Sea until the soil was sufficiently free from salt to be available for agriculture. A channel would be cut at the foot of and parallel to the cliffs, so that the maximum amount of the underground current should be intercepted and rendered available for irrigation.

This would have the disadvantage that the water would still be impregnated with as much sulphate of calcium as at present, and, as far as my observation goes, the sea-bottom below the shallow water on the margin of the Dead Sea is stony and far from suitable for agriculture.

The other possible method of making use of the underground water flowing from the west towards the Dead Sea would be to tap it further westward. There is a long line of faulting and folding striking a little east of north and west of south roughly parallel to the cliffs overlooking the Dead Sea, and about 7 kilometres to the west of them. It is probable that if borings were made in the low ground at or a few metres west of this fault, a good supply of water would be found at a moderate depth not exceeding, say, a 100 metres.

Indeed, even now the water rises nearly to the surface in at least one spring. There would, therefore, be a considerable supply of water available for irrigation and a large area might be cultivated. The Bukeia Plateau which lies within the concessions seems especially suitable for the purpose. It is from 300 to 360 square kilometres, and includes important phosphatic deposits.

Elsewhere there are smaller tracts of a similar character which could be irrigated in a similar manner.

The wells sunk in the position I have indicated may be expected to yield water containing less sulphate of calcium than those on the margin of the Dead Sea.

The location of the most suitable places for such wells—that is to say, where the flow of an underground water is greater than elsewhere—could be effected by electrical operations of the same character as those already referred to.

Conclusions

We spent altogether only three months in the two concessions. We were able in that time to make a preliminary examination of the hills on the west of the Jordan Valley and the Dead Sea and the minor hills north of Jericho. The work in the extreme south was hurried, and the western portion of the concessions was scarcely touched, except near the main road from Jerusalem. Much remains to be done, but we were able to satisfy ourselves that there were important possibilities in the area. The amount of phosphates is so large that we may look forward to see them playing an important part in the agricultural development of Palestine, and if the expectations of an increase of value in depth are fulfilled they may give rise to a valuable export trade. The bituminous limestones containing over 20 per cent. of volatile hydrocarbon are of considerable extent, and should also prove an important commercial asset, especially as a valuable material for roadmaking. The existence of considerable supplies of underground water at no great depth below the hills and valleys and plateaus of the Dead Sea seems assured, and I see no reason why a tract of valuable agricultural land south of the Concessions should not be reclaimed from the desert.

Needless to say, for the success of the mineral and hydraulic development of the concession, it is of the greatest importance that the cognate scheme of the utilisation of the Dead Sea salts and of a railway along the western margin of the Jordan Valley should be simultaneously presented.

I should like to acknowledge unreservedly my indebtedness to the hard work and experience of the geology of Palestine of my assistant, Dr. Picard, and the very efficient arrangements made by Mr. Leibovitz for facilitating the carrying out of the survey. Nor must I omit to refer to the services rendered by my servants and the police.

The analyses were carried out partly by Mr. Shlom and Professor Bobtelski in Palestine, and by Dr. Harwood, of the Imperial College of Science and Technology, in London.

August 29th, 1928. J. W. E.

ANNEXE 5

SETTLEMENT IN THE HILL COUNTRY

1. *Limits and Area.*

The hill country is divided into the following three districts :—

(*a*) The Northern District.
(*b*) The Samaria District.
(*c*) The Judæa District.

(*a*) *The Northern District* is bounded on the West by the Plain of Acre, on the South by the Plain of Esdraelon and Beisan, on the North by the political frontier, and on the East by the Jordan Valley and the Sea of Galilee. Its area is 1,416,400 metric dunams.

(*b*) *The Samaria District* is bounded on the North by the Plain of Esdraelon and Beisan, on the West by the Plain of Sharon, on the East by the Jordan Valley, and on the South by the line dividing the Hills of Ephraim from the Hills of Judæa. Its area is 2,797,100 metric dunams.

(*c*) *The Judæa District* is bounded on the West by the Shephelah, on the North by the Hills of Ephraim, on the South by the Plain of Beersheba, and on the East by the summits of the Jerusalem hills.

The total area of the hill country is therefore 7,144,500 metric dunams.

2. *The Quality of the Soil.*

The soil of the hill country as defined above is arable either in its present state or after amelioration by means of terracing and the removal of stones. Hills or hill sides that can be cultivated only with the aid of special installations, such as irrigation, have been excluded. For this reason all the hill-sides facing eastward to the Jordan or to the Dead Sea have been left out of account ; also the hills to the south of Hebron, facing towards the deserts of Judah and Beersheba.

In each of the three Districts, there are extensive valleys, stretching among the ridges. The Northern District, for example, comprises four valleys, with a combined area of 56,000 dunams, the Samaria District, five valleys with a combined area of 97,400 dunams ; and the Judæa District, three valleys with a combined area of 16,000 dunams. The total area of the hill-valleys is therefore 169,900 dunams. The narrow wadis among the hills have not been included.

Besides the valleys, the hill country includes mountains with level summits and with steep or gentle declivities. Some have a fairly deep layer of soil, and others consist of naked rock. The latter are not adapted for the cultivation of profitable cultures, but only for the planting of forests or for pasture. From my knowledge of the hill country, I estimate the area of land in it that is unsuitable for agriculture in each District as follows :—

In the Northern District,	20	per cent.	of the total area,	viz.,	283,280	dumans.
,, Samaria District,	25	,,	,,	,,	699,275	,,
,, Judæa District,	35	,,	,,	,,	1,024,450	,,
On the average	16.6	per cent.,	or a total area of		2,007,005	,,

There remains, therefore, an area of arable land of 5,137,495 dunams.

3. *Type of Cultivation.*

The farm in the hills can only be based on fruit plantation. It is wasteful to grow barley, wheat, and vetches on the slopes and tops of the mountains. The number of ears yielded is exiguous. Grain-growing is likewise uneconomical in the larger valleys, inasmuch as the latter are adapted by the nature of the soil for the cultivation of unirrigated plantations and late-ripening vegetables without artificial watering. Only unirrigated plantations are, of course, practicable, and the results of experience indicate more particularly the olive, the fig tree, the grape vine, various stone-fruits such as apricots, and plums, and apples and quinces. By dint of rational cultivation and care, this type of agriculture can stand on sound economic foundations. For olive oil, pickled olives, dried figs and fig-cakes, late-ripening grapes and raisins, fresh and dried plums and apples, there is always a demand in the Palestine market, and this demand is likely to grow considerably in the course of time. For these reasons, I assume that the type of farm will be as follows :—

10 dunams	of olive and fig trees yielding an income of	...	£P.40
8 ,,	of fruit trees yielding an income of	...	.80
7 ,,	of grape vines yielding an income of	...	.35
5 ,,	occupied by the farmyard and vegetable patch ...	...	.5
Or a total of 30 dunams yielding an annual income of ...		...	£P.160

Twenty per cent. should be added to the area on account of terraces ; the total area of each agricultural unit will be 36 dunams.

A farm such as this is for the present-day fellah an ideal. If he has fifty olive trees he is considered a well-to-do farmer, with a good livelihood assured—witness all the villages in Upper Galilee. Their economic basis is primarily the olive, the grape and other fruits, and they are the richest villages in the country ; it is, moreover, universally known that the villages of the hills are on a sounder economic footing than those of the plains. That explains why the greater part of the Arab population of Palestine inhabits the hills. I should also be borne in mind that numerous springs of water flow among the hills, especially in the north and in the Samaria District ; thus the area of a unit farm may in many cases be reduced.

4. *The Inhabitants.*

In the above-mentioned area, there are 581 villages, the population of which totalled in 1922, according to the Census held in that year, 283,792 souls. Agriculturists also live in Nazareth, Safed, Nablus, Hebron, Ramallah and Bethlehem, and the number of agriculturists among the inhabitants of these cities is estimated at 29,400. In all, therefore, there were in 1922, 313,193 agricultural inhabitants in the hill country. If we assume that the natural increase during the last eight years has been 15 per cent., the present agricultural population of the zone in question is about 342,170. Most of the families in the hill villages number six members each, but to be on the safe side, we shall divide this number by five and obtain 68,440 agricultural families in the area under discussion.

The area of land which these families require (at a rate of 36 dunams apiece) is 2,463,840. The area that can be cultivated, we have said, is 5,137,495 dunams. There remains, therefore, an area of 2,614,000 dunams free for colonisation by 74,000 families. Even if a further reserve of 50 per cent. is made, it would follow that there would be room for the additional settlement of 35,000 families in the hill country during the next thirty years.

(*Sgd.*) JOSEPH WEIZ.

JERUSALEM,
June 25th, 1930.

URBAN DEVELOPMENT IN PALESTINE

JULY, 1930

—

The Jewish Agency for Palestine
77 Great Russell Street
London, W.C.1

URBAN DEVELOPMENT IN PALESTINE.

1. The purpose of the present Memorandum is :

(1) To describe the present state of industry ;
(2) To show its development ;
(3) To indicate its prospects ;
(4) To draw some conclusions bearing on the relation of industry to immigration.

2. Wherever industry is mentioned in this Memorandum, Jewish Industry is meant, unless expressly otherwise stated. Jewish industry in this connection means that both the owners and the workmen are either exclusively or to the extent of an overwhelming majority Jewish. The cases where some doubt is permissible as to whether a particular industry is to be considered as Jewish are very rare, so rare that they do not affect any general conclusion. One might mention :

(*a*) The " Shemen " Oil Factory of Haifa, originally in entirely Jewish ownership, which has passed into the hands of an international oil group with strong British participation. Management and labour have remained Jewish.

(*b*) The " Nur " Match Factory of Acre, originally in entirely Jewish ownership with mixed labour which, as far as can be ascertained, has passed under the control of the Swedish Trust without, for the time being, changing its character.

There is scarcely any other doubtful case of importance.

The Maspero Cigarette Factory with a strong proportion of Jewish labour, but an undoubtedly non-Jewish ownership, has not been considered as forming part of " Jewish industry."

3. Very recently, in the month of March, 1930, the Statistical Department of the Jewish Agency carried out a census of Jewish industry, and most of the results of this census are now available.

Unfortunately it has not been possible, for various reasons, to obtain full details from some industrial enterprises. Although their number is small the importance of some of them is considerable. It is possible, however, with a fair degree of accuracy, which in any case is sufficient for the broad conclusions arrived at in the present Memorandum, to estimate the necessary data

concerning these enterprises, thus completing the exact statistical data and enabling us to provide a complete picture of the state of industry, sufficiently reliable in every respect for the present purpose.

The number of enterprises from which statistical data have been collected is 2,276. The additional number of those whose corresponding data have been estimated is 12. They include, however, the Palestine Electric Corporation, the Nesher Cement Factory, the Grands Moulins de Palestine and the Dead Sea Works (just started). With respect to most of these, it was found possible to rely on the figures of the Government Census of 1928 for an estimate.

In addition, a number of small concerns have also either escaped exact statistical survey or the results of such survey as has been made have not yet been incorporated in detail in the final figures. Wherever necessary, reference will be made to the estimates to which these particular cases have given rise.

4. Dealing first of all with those industries that have been incorporated in the Census, the appended Table I. will be found illuminating.

It will be seen from this table that 2,276 urban enterprises gave work to 9,362 persons, that they had an annual wage-bill of £476,452 and used raw materials to a value of £904,881. They produced finished articles to a value of £1,635,462, and they estimated their invested capital at £998,904.

5. The fact that 2,276 enterprises employed only 9,362 workers shows that an enormous proportion of them must be of the smallest possible type. Indeed, if we divide the enterprises as follows :

Group A.—Artisans who work with or without paid labour and who sell their products mainly direct to private consumers, the number of persons engaged in each enterprise being less than 5 ;

Group B.—Small industries which employ 5 to 9 workmen and sell part of their products direct to private consumers ;

Group C.—Industries that employ more than 10 men and work for the wholesale market,

we shall find that among the total number of enterprises of 2,276 there were :

1,725 belonging to Group A,
418 ,, ,, ,, B,
133 ,, ,, ,, C.

6. The 1,725 enterprises of Group A employed 3,200 persons, they had an annual wage-bill of £180,039, and used raw materials

to a value of £166,958, producing finished articles worth £371,404, with an invested capital of £134,563.

7. The 418 enterprises of Group B employed 2,626 persons, they had an annual wage-bill of £110,435, and used raw materials to a value of £281,045, producing finished articles worth £526,125, with an invested capital of £274,915.

8. The 133 enterprises of Group C employed 3,536 persons, they had an annual wage-bill of £185,978, and used raw materials to a value of £456,878, producing finished articles worth £737,933, with a capital of £589,426.

9. It will easily be seen that Group C, although forming only 6 per cent. of the total number of enterprises, represents by far the most important part of industry, inasmuch as it accounts for 38 per cent. of the total number of persons employed, 40 per cent. of the wages paid, 50 per cent. of the raw materials used, 45 per cent. of production, and 59 per cent. of capital invested.

10. The industries of Group C belong to the following categories :

Food	24
Textile	12
Clothing	2
Metallurgical	21
Wood	15
Leather	10
Printing...	20
Chemical	3
Stone and Cement	19
Electrical	3
Miscellaneous	4
	133

11. Table 2 gives a more detailed survey, inasmuch as each main branch of industry is subdivided into a number of special headings.

12. Table 3 shows in what measure industry is concentrated in Tel-Aviv. Taking the main group (C) only into consideration, one finds that out of this group 60 per cent. of the number of enterprises are established in Tel-Aviv, with 80 per cent. of the invested capital ; they employ 64 per cent. of the total labour with 67 per cent. of the total wage-bill. They use 54 per cent. of the raw materials and account for 71 per cent. of the total production.

13. The growth of industry during the last ten years is seen from Table 4.* (Owing to preparation of the table under pressure of time, its totals show very slight deviations from those of Tables 1 and 2 : 2,277 enterprises against 2,276, 9,365 persons engaged against 9,362, 137 enterprises in Group C against 133, but 415 in Group B against 418. That these slight differences can in no way influence the broad conclusions is obvious.)

Confining ourselves to Group C, we find that out of the 137 enterprises which exist at present, 24 existed already in 1919. They employ *at present* 750 persons and have *at present* £104,314 capital.

Fifty enterprises were created in the period 1920-24. They employ *at present* 1,515 persons and have *at present* £291,930 capital.

Fifty-six enterprises were created during the period 1925-1929. They employ *at present* 1,204 persons and have *at present* £188,489 capital.

Three enterprises were created during the present year 1930. They employ *at present* 37 persons and have *at present* £2,620 capital.

During a period which it was not found possible to investigate there were created four enterprises with *at present* 65 persons and *at present* £6,353 capital.

From this survey all those enterprises that have not succeeded and have, therefore, not survived, have automatically been eliminated, inasmuch as it deals only with those enterprises that exist to-day.

It need scarcely be emphasised that this cannot be called a comparative survey, inasmuch as it does not give the number of enterprises and the volume of labour employed and capital invested during any previous period. An effort to supply information of this kind will be made in the further course of this Memorandum.

14. Some attention must now be given to those enterprises referred to in Para. 3 that have escaped inclusion in the census.

Seven of them (among them the various Electric Stations, the Nesher Cement Factory, the Grands Moulins and the Nur Match Factory) have been estimated on the basis of the 1928 Government Census. For the purposes of this estimate, the Electric Stations are included for the number of workmen, wages and capital investment, but, for obvious reasons, neither for the purposes of raw material nor output. The Grands Moulins are

* Printed separately.

included for the purposes of production and invested capital, but not for the purposes of number of workers, wages and raw material, as they had supplied these data for the census and they are included in its figures.

The following figures are then arrived at for the seven enterprises :

1,057 workmen are employed,
£78,100 annual wage-bill,
£27,100 raw materials,
£316,000 production,
£953,000 capital.

The remarkable disproportion between raw materials and production is to be ascribed to the inclusion of the Nesher Cement Factory with an output of £120,000 produced out of " Raw Materials " worth next to nothing, and to the inclusion of the Grands Moulins production, but not their raw materials as explained above.

Another group of five enterprises which have been estimated on the ground of reliable information includes the Jordan Electrical Works and the Dead Sea Works. The number of workmen employed by the Jordan Electrical Works (about 500) has not been included in the total figure, as the men are not employed in the electrical industry proper, but in the building industry, which remains outside the scope of the present survey up to this point. Now raw materials or output of the Jordan Electrical Works could, of course, be stated, and they are included only with respect to capital.

The Dead Sea Works, which are yet in the first more or less preparatory stage, are included with respect to number of workmen and wages paid and with respect to capital, but no account is taken of any raw materials or output.

The following figures may then be assumed as correct for these five enterprises :

230 workmen,
£26,000 annual wage-bill,
£30,000 raw materials,
£68,000 production, but
£1,310,000 capital invested.

Finally, there is a considerable number, over 400 enterprises, in the colonies and villages, to which the following *estimates* apply :

700 persons engaged,
£40,000 annual wage-bill,
£40,000 raw materials,
£100,000 production,
£100,000 capital invested.

15. All the enterprises dealt with in the preceding paragraph, with the exception of the village industries, belong to Group C. All the village industries will be considered for the sake of convenience to belong to Group A. This will probably be very near to the truth.

It will then appear that a recapitulation of the estimated figures dealt with in the preceding paragraph will look as follows :

Group C.

12 enterprises,
1,287 workmen employed,
£104,100 annual wage-bill,
£57,100 raw materials,
£2,263,000 capital invested.

Group A remain as quoted in the preceding paragraph and the total figures will be :

412 enterprises,
1,987 persons employed,
£144,100 annual wage-bill,
£97,100 production,
£2,363,000 capital invested.

16. If, again, these figures are combined with the total figures of the census, the following final results will be arrived at :

2,688 enterprises,
11,349 persons employed,
£620,352 wages,
£1,001,981 raw materials,
£2,119,462 production,
£3,361,904 capital invested ;

it being well understood that the last item includes no less an amount than £1,315,000 for the capital invested by the Palestine Electric Corporation and the Dead Sea Works, whilst the figures for raw materials and production included no contribution from these two enterprises. (It is perhaps worthy of note that among these enterprises there are not less than forty-two, with 705 persons engaged, which are being conducted on a co-operative basis.)

17. From the Industrial Census, on which the present figures are based, the following occupations were excluded : Building and Transport.

At the same time, however, a General Census of Jewish workmen was made, which provides the figures of labour employed in these two occupations. These figures are :

Building 1887
Transport 1492

If the term industry be taken, therefore, in a broader sense, so as to include Building and Transport, the total figure of those employed in it will be 14,728.

18. The number of dependants of these 14,728 workmen has not been statistically ascertained. Other ways must be found, therefore, in order to arrive at a reliable estimate of this number.

In the course of the Workmen's Census, it has been found possible to define the family circumstances of 17,404 male and 5,580 female workers. Altogether 18,021 male and 5,755 female workers are included in the census. Out of those, 11,724 male and 4,343 female workers are town dwellers, and it is reasonable to identify them roughly with the 14,728 industrial workers, as per the figure arrived at in the previous paragraph. The proportion being 73 per cent. men and 27 per cent. women, we may apply this proportion to the figure of the industrial workers, and may confidently state that there were working in industry

	10,751	or say,	10,700 men
and	3,977	,, ,,	4,000 women
Together	14,728	,, ,,	14,700 persons.

19. Now in order to remain on the safe side, none of the husbands and children of such married women as there are under the female workers will be considered as dependants for the purposes of the present investigation.

The Workmen's Census shows that out of 17,404 male workers whose circumstances were known, there were

8,724	unmarried men
8,600	married men
80	widowers
Together 17,404	

Thus, almost exactly one-half of the male workers are married.

It is not certain whether this general average proportion also applied to the town workers in particular, but in view of the fact that they form two-thirds of the workers dealt with in the census, and, further, in view of the known circumstances as observed in daily life, one may assume with a very fair amount of safety that the proportion in town and country cannot differ very much.

It is, therefore, quite safe to assume that there are 5,350 married male industrial workers, and it may be assumed that

they have on an average not less than 3·4 dependents per head, or an aggregate number of 18,190, or, say, 18,200 persons.*

One may, therefore, conclude that the total number of persons living on industry is as follows :—

	10,700 men.
	18,200 dependents.
	4,000 women.
Together	32,900 or, say,
	33,000 persons.

20. This figure of 33,000 merits some emphasis and further consideration.

It is entirely safe to assume that at the beginning of the post-war period there were not more than a very few thousand persons living on industry. No reliable census was made at the time, but the following facts may be adduced :—

(1) It is known that practically the whole of industry is of recent growth.

(2) There are, as has been explained in paragraph 11, among a total of 137 enterprises of Group C, only 24 that existed already in 1919, and they employ *at present* 750 persons. Add to these another 1,250 persons for Groups A and B (as per proportion calculated in paragraph 9), but deduct for growth of these enterprises since 1919, and add again for enterprises vanished since 1919. It will become clear that by no stretch of imagination can one assume that more than a few thousand persons including dependants lived on industry in the year 1919. And a good part of them had come in during the year 1919 itself, which was already a year of immigration, only a part of which immigration was recorded in the then incomplete statistical immigration returns.

It follows then, that out of the increase in the Jewish population after the War of about 100,000 souls, at least 30,000 or 30 per cent. live directly on industry.

21. It is not the purpose of the present Memorandum to give a historic treatise on the development of industry during the post-war period, and a very few figures only will, therefore, be given.

As stated in the preceding paragraph, the number of people employed in industry at the time of the Occupation was negligible.

* The figure of 3·4 dependants per married man is not a loose estimate ; it rests on a secure statistical foundation. It has been found in the recent Workers' Census of the Jewish Agency that 7,273 families count 32,400 souls, or almost exactly 4·4 souls per family.

There has not been during the whole post-war period a census exactly on the lines of that from which the present figures are taken. One census, however, took place in the year 1925, and another in the year 1926. They show a figure of 4,694 workers in 1925, and 5,711 in 1926.*

Inasmuch, however, as they show only 536 and 583 enterprises, it would seem that the greater part of Group A was not included. This group, however, accounts even now only for 3,200 workers (paragraph 6), and if, say, 2,000 workers are added to the 1925 and 1926 figures by way of adjustment, one may arrive at an average rough estimate for 1925-26 of about 7,000 workers against 11,300 at present.

This estimate is, of necessity, rather rough. There is, however, another way of checking it. The Government arranged an Industry Census in the year 1928, which included enterprises of Group A in a very large measure, and which shows a total number of 17,955 † workers. (The fact that this figure includes not less than 5,547 " owners," shows in how large a measure Group A has been considered.) This Census may, therefore, fairly be compared with the present Census. Now the published figures of the Government Census do not distinguish between Jews and non-Jews, but it is understood that such a distinction has been made and that it shows that Jews account for about 55 per cent. of the number of persons employed in the towns. This would mean that about 8,000 Jewish persons were employed in industry in the year 1928.

22. The figures :—

1925-26	7,000
1930	11,000

become even more plausible in the light of the following statistics which have been made available by the Jaffa Electric Company of Tel-Aviv. The sale of electric energy to industry is bound to be a fairly good index of the growth of industry.

Consumption in kilowatt hours of various groups of industries during the years 1924 to 1929 : (The Company's year runs from October 1st preceding the year mentioned, till September 30th.)

FOODSTUFFS

1924	24,900
1925	46,180
1926	82,825
1927	108,800
1928	111,780
1929	148,575

* *Statistical Abstract of Palestine*, 1929, Keren Hayesod, p. 161.
† *Statistical Abstract of Palestine*, 1929, Keren Hayesod, p. 257.

Textiles	
1924	7,530
1925	41,160
1926	59,300
1927	91,200
1928	130,150
1929	188,084
Mechanical Workshops	
1924	2,480
1925	11,770
1926	21,240
1927	21,720
1928	26,860
1929	47,545
Clothing	
1924	1,040
1925	3,100
1926	8,850
1927	5,790
1928	9,510
1929	10,526
Printing and Stationery	
1924	2,550
1925	14,220
1926	25,890
1927	23,640
1928	30,900
1929	46,913
Sundry	
1924	620
1925	940
1926	4,050
1927	5,200
1928	10,700
1929	16,910

These figures show a gratifying and constant development. They also show that the so-called crisis of 1926 had scarcely any effect on industry.

Altogether this " crisis " has been made far too much of in recent discussions. It will probably have to remain a moot point if a continuation of the immigration, as the years 1924 and 1925 showed, would or would not have resulted in a crisis if proper precautions had been taken to deal with it. What is certain, however, is that this so-called crisis was in no way caused by a breakdown of the economic structure of the Jewish community in Palestine. It was caused, and very suddenly so,

by an economic breakdown in Poland, the country of origin of the greater part of the immigrants of those years. This breakdown rendered it impossible to them to liquidate their Polish investments ; many of them who had started building and planting, trading and producing, counting on their resources in Poland, were severely disappointed, and they had to curtail and even terminate their activities. They were mainly concentrated, as is sufficiently known, in Tel-Aviv, where a considerable amount of building was going on. This building activity was more or less suddenly interrupted and a considerable amount of unemployment naturally had to follow.

This was the " crisis." Outside of Tel-Aviv the country was not affected by it in any notable degree. Planting went on with great vigour and success. Industry not only grew, but prospered.

Such unemployment as there was, was dealt with on the well-known lines, and it is worthy of note that several thousands of the unemployed were absorbed by industry (probably some 3,000).

It is quite impossible to prove any radical repercussion of this mainly local crisis, which remained mainly confined to one particular branch of economic activity, viz., building, on the general economy of the country. That there must have been some measure of such repercussion is not denied, if it were only in the enormous reduction of Government revenue. But if the general situation of the country during the years 1926 and 1927 was unfavourable, the part which the drought and cattle plague of 1926 and the earthquakes of 1927 played as contributing factors should not be overlooked.

23. The question now arises as to whether this new industry could find room in Palestine without causing appreciable harm to the Arab population. In considering this question the advantages which Jewish enterprise in industry have brought to the Arab population will not be insisted upon at all. Neither the customs duties nor the taxes paid out of all proportion to the Arab contribution per head of the population, neither the broad market offered to Arab agricultural products nor the cheapening of many products, will be emphasised. All these points have been sufficiently emphasised in recent times, and it is not the purpose of the present Memorandum to deal with them.

One point only is worth mentioning. Jewish industry has in course of time in a far from negligible degree procured work for Arab labour. The larger concerns (Nesher, Atlit Salt Works, Dead Sea Works, Electricity Works, " Nur " Matches Factory,

etc.) employ between them at least 350 to 400 Arab workmen. It is estimated that in the Jewish building industry at least 400 to 500 Arab workmen are employed. These remarks, however, are merely by the way. The main point remains :—

Has the building up of this industry hurt Arab interests ?

First of all, it is worthy of note that the Arabs themselves, who are so profuse in their complaints, have never yet formulated a complaint of this kind. There is indeed no room for it.

Two main complaints might be imagined :

(1) Cheap immigrant labour might have competed with higher paid indigenous labour, with all the consequences of such a competition.

That there is no room for a complaint of this kind is beyond discussion.

(2) Immigrant industrialists, through superior skill, capital, support or whatever other advantages, might have successfully competed with indigenous industrialists and have driven them out of business.

It is not intended to admit that a complaint of this nature, even if justified by circumstances, would be a legitimate reason for not allowing the Jews to come in and do their best to make a living on industry. If the scheme of allowing the Jews to build up their National Home is to have any sense at all it cannot possibly debar them from building up what is, with every modern nation, either the first or the second most important foundation of national prosperity, for the mere reason that the Arab population has not chosen or is not choosing to do so in an equal measure. If that absurdity were contended, the Jews should have been told so beforehand and they would then have known that the Balfour Declaration is devoid of all sense and contents. By no stretch of imagination, however, can such a thing be read into the second part, the proviso, of the Balfour Declaration, which merely states that " nothing shall be done which may prejudice the civil and religious rights of existing non-Jewish communities in Palestine."

24. This digression on a matter of general principle was deemed necessary here because it cannot reasonably be demanded that in some exceptional individual cases the development of some particular Jewish industry may not have hurt in the past or may not hurt in the future the development of such little Arab industry as there exists.

But this again is stated here mainly as an important reservation as a matter of principle. In actual fact, the question is of no importance whatsoever, as there existed at the beginning of the post-war period only one Arab industry of some real importance—the soap industry of Nablus and Jaffa, and with this particular industry the Jews have not competed and are not competing to-day to any measurable degree.* If ordinary trades like tailoring and shoemaking are called industry, as they are in the Government Census as well as in the Jewish Agency Census, then, of course, there is bound to be some competition, inasmuch as there naturally are Jewish as well as Arab artisans in those and similar trades. With the exception of a comparatively small number of long-established artisans who have a number of Arab customers of many years' standing, the Jewish artisans in general and those arrived since the war in particular, have found work within the Jewish community, which continues to grow every year.

25. *Jewish industry has filled, therefore, or more correctly, has just begun to fill, an economic vacuum and the extent of this vacuum is not yet known.* It is reasonably certain, however, that until now only a small part of it has been filled. No one has yet been able to define the limit of future possibilities.

From the point of view of industry the whole talk of the *absorptive capacity of the country* is out of place and should be disposed of once and for all.

It is not the primary aim and it cannot be the basis of Jewish industry to cater for the wants of 600,000 Arabs, three-quarters of whom are poor peasants. They are welcome buyers, and the more prosperous they become, the better Jewish industrialists will be pleased, and they on their part have nothing to complain of, and indeed, do not complain, if imported industrial products are replaced by goods manufactured in the country. But Jewish industry does not limit itself to manufacturing goods for Arab consumption. At the present time this Arab consumption plays a very secondary part only, as is proved by the fact that the boycott of Jewish products which was carried through after the riots for several months with all the expedients of the most unscrupulous terrorism, did not affect Jewish industry to any material degree.

If the growth of Jewish industry were limited by the buying power of the Arab population of the country, then, indeed, one might have to investigate the absorptive capacity of Palestine

* The Arab factories produced and produce only large cubical blocks of unperfumed soap for laundry purposes—the so-called Nablusi soap—and in this field only the Shemen factory of Haifa offers some very modest competition.

for such Jewish immigration as is to be employed in industry, by trying to gauge the extent to which industrial products imported from abroad could still be replaced by products manufactured in the country.

But it is to the Jewish community itself and to export that Jewish industry looks in the first place. *It is quite incorrect to believe that Jewish immigration is dependent on a market being already available : it is before all things Jewish immigration that creates the home market and conquers the foreign market.*

26. Whoever will attempt to point out the future possibilities of Jewish industry in Palestine must expect that he will meet the easy criticism that he is expatiating on dreams of the future and on unproven schemes, that a bird in the hand is worth two in the bush, and that immigrants cannot live on airy probabilities.

It is hoped that it will scarcely be necessary to point out in the present Memorandum how utterly futile such criticism is, and how entirely it misconceives the fundamental character of immigration.

A country with an economic structure that shows, so to speak, a gap into which an immigrant population need only step in order to find its place and to be permanently employed, such a country is an exception. There is not, probably, at the present moment, any such country in the world. France, in the first years after the war, was a case in point ; industry was prospering and calling for labour beyond the numbers of available man power, impaired as it was by the war. Some hundreds of thousands of Polish and Italian labourers stepped in and were assimilated without any difficulty as they were wanted, and wanted at once. Such cases are exceptional. As a rule, the immigrant has *to create his own employment. An active immigration policy has to be a creative policy.* To sit and watch the economic development of the country and now and then to open the gate and grudgingly admit a severely limited number of labourers for whom the country clamours, is not a policy for a Government that has undertaken to encourage the building up of a National Home in the country for people who are not at present in it. Such a Government has actively to *encourage* immigration, not merely to *permit* it, most certainly not to *discourage* it.

If that is so, future possibilities, even though it could be contended that many of them may not materialise at all, merit the closest study and they must become an essential factor in the country's immigration policy. The word " possibilities " is used advisedly : if they were sure to materialise they would not be " possibilities," they would be " certainties."

27. Now in considering future possibilities, one has to do away with preconceived notions that have proved to be fallacious times out of number, but that reappear again and again with incredible tenacity, particularly when arguments against Jewish development in Palestine have to be found.

The nineteenth century contention that the development of industry is dependent on the proximity of coalmines is, of course, to-day obsolete. That it never was really true is shown by the fact that very important industries could thrive in countries like Holland and Italy on imported coal ; but to-day it is certainly less true than ever. Liquid fuel and hydraulic power have disposed of it.

Hydraulic power, it is true, is available in the country to a limited extent only. The total power of the Jordan Works at the maximum development that has been planned at present is about 100,000 h.p.* The present consumption of electric power on the part of those industries that are provided with it by the Jaffa and Haifa Power Houses is covered by those two Power Houses with machinery of a total of 3,300 h.p.

This means that there is a certain reserve yet of hydraulic power for many times the industry that Palestine possesses at present. And as present-day industry feeds directly 33,000 people (and indirectly many more), it follows that no immigration that can at present be foreseen will be hampered by lack of hydraulic power.

When once this source of power will be taxed to the full, liquid fuel and coal will still be available in Palestine at a price not materially differing from that at which a country like Italy manages to compete successfully with Lancashire.

28. Industry, it has been said, ought to be built up on the raw products of the country.

Proximity to the source of raw material is certainly an advantage ; but it is one only among a series of factors that may make for success, and it is not at all one of the most important factors, let alone a decisive one. The heavier and cheaper the raw material is (iron ore for instance), the more importance this factor gains. The more expensive the raw material is, the easier it can bear freight to the place where other factors combine to favour the manufacturing of it into some finished product.

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* The first hydraulic installation is calculated to produce 24,000 h.p., but it will start work with turbines producing 6,000 h.p. The estimate of 100,000 h.p. does not include power to be derived from the Lower Jordan, for which no plans and calculations have yet been made.

Lancashire is probably the most classic example of a huge world industry based entirely on raw material imported from beyond the seas. Of course, there remain good reasons why in England the cotton industry is centred in Lancashire and not in Cornwall. It is not meant to contend that any industry can thrive anywhere on any raw material. All that is meant to say is that industry may, *if other factors are sufficiently favourable*, very well dispense with proximity to the source of its raw material and may import it even from very distant countries, whilst fully maintaining its competitive possibilities.

Lancashire is only one instance out of hundreds.

Dutch cigars, which are exported to all countries of the world, are made from Brazil and Sumatra tobacco.

Egyptian cigarettes are made from Macedonian tobacco. There is not one raw material that enters in the manufacture of this cigarette and its packing that is not imported from abroad.

Holland again has quite a notable engineering and textile industry, based entirely on imported raw materials and imported coal. So have Switzerland and Italy.

Not one raw material that goes into the manufacture of a Swiss watch is found in Switzerland.

That Holland, England, Germany and Switzerland grow no cocoa beans is sufficiently well known. Still, they produce the best chocolate.

Neither the sugar nor the oranges that go to make English and Scottish marmalades imported into Palestine are grown in the United Kingdom.

The diamond industry of Amsterdam and Antwerp is world famous. In Amsterdam the industry is so old that it demands a fair amount of historic research in order to find out why Amsterdam became a centre for it ; in Antwerp, however, it is of quite recent growth, scarcely older than a generation, and it is not at all difficult to determine why it developed there. In both cities, but particularly in Amsterdam, this industry is a specifically Jewish one. At the same time, efforts to foster a diamond industry in a city like Johannesburg in close proximity to the mines have met with a most indifferent success. The skill of the Amsterdam Jewish workmen could not in any short time be equalled by workmen in Africa, and the proximity to the mines is of no account whatever as compared with proximity to the market.

Certainly this should not prevent us from continuing to study the use to which such raw materials as the country produces can

be put, and in using them we shall through our proximity to such raw materials—other conditions being equal—have an advantage over others who would have to import them. But other conditions are never equal, and in each individual case we shall have to find out whether proximity to the source of the raw material gives us a sufficient advantage over other countries to enable us to compete with them in the market of the finished product. Palestine grows oranges and Scotland does not. Still, it has not yet been proved that we can sell marmalade cheaper than Scotland can. Gaza barley is made into better whisky by the Scots than any Palestinian Jew or Arab can ever hope to produce.

There are several raw products in the country that may form the basis of more or less important industries. Fruit-canning industries may have a future in Palestine not less than in California. We produce oranges, lemons, grapes, apricots and vegetables that may be preserved or made into jams and juices. Our dairy industry is still in its infancy. Medicinal herbs and certain flowers open prospects for medicinal and perfumery industries. Olives, sesame, flax (linseed), castor-seed and other plants may stimulate the oil industry. There is wool, there are skins and hides, there are quarries of stone and marble, there may be petroleum and many other minerals. There is the immense store-house of the Dead Sea which may give rise, especially in combination with cheap electric power from the Jordan, to chemical industries undreamt of at present.*

But under no circumstances can it be admitted that the extent of the possibilities of Jewish industries in Palestine is in any way limited or even indicated by the raw materials which the country produces.

29. It is furthermore said that proximity to the market is an immense advantage for any industry.

This undoubtedly is so, and it will be one of the main tasks of the leaders of Jewish industry to make the most of the unique position of their country.

It is not so much the difference in freight that makes proximity to the market an advantage. This difference plays a decisive *rôle* only where the article is bulky and cheap. You must get bricks from the nearest source, but it is easily imaginable that a typewriter or motor car from America may be cheaper in price than one produced in the factory next door.

What mainly makes proximity to the market an advantage is the increased facility of intercourse between the producer and

* Memorandum on this special matter is annexed as Appendix No. 1.

the consumer. There is a reasonable presumption that the producer will know the market better that is close at hand, and that he will more readily adapt himself to its habits, respond to its demands, and follow its moods and changes. What is still more important ; he will be able to deliver goods at short notice and dispense the wholesale dealer from the necessity of keeping large stocks. He will also find it easier to advertise his products and to remain in permanent contact with the customers.

Those advantages are undeniable, and they give Palestine a unique position in this part of the world. We are nearer to Syria, Egypt, Arabia, Iraq and Persia than any other industrial country. For a British factory to send a man to Persia in order to collect orders means little less than an expedition, for a Palestinian manufacturer it is a motor trip. An order for goods from Syria takes one or two days to reach Tel-Aviv, seven or eight days to reach a European manufacturing district. If forwarded at once, the goods may be in Damascus from Tel-Aviv in another two days or so ; they could not, if forwarded post haste, take less than two or three weeks from Europe.

Palestine can play a *rôle* of importance in all the markets of the Near East, and these markets are important enough to keep a little Oriental Belgium busy.

30. What really defines the possibilities of future Jewish industry in Palestine is a factor which has not yet received sufficient attention, and which, indeed, is not yet to its full extent known even to the Jews themselves : *It is the human factor.*

The fundamental question *is not :* Where are we going to take the power ? *Nor :* What raw materials are available ?

Not even, although it is an important question : What are the best markets ?

The fundamental question is : Are there Jews, and how many of them are there, who are prepared to immigrate into Palestine if sufficiently encouraged, or, at least, not discouraged, and who will bring with them sufficient capital and adequate business experience, but preferably a sufficient knowledge of a particular industry, in order to set up industries which may, each in its own line, compete with similar industries ; and are there other Jews who are prepared to immigrate into Palestine to supply the skilled and unskilled labour required ?

If such Jews do not exist at all or are not available in any large numbers, then the present investigation with respect to the possibilities of an industrial immigration as distinct from an agricultural immigration becomes obviously purposeless. The

problem will then have been solved by its non-existence. It is the contention of the Zionists that such Jews do exist, and that they are available in large numbers, that they clamour for admittance and that in settling in Palestine they will not drive out the Arab population that it holds at present.

31. A spiritual and economic movement within a people of 16,000,000 souls, dispersed over the globe, is not a thing that can easily be measured and checked up in all its particulars. One cannot, for instance, point to a given number of applications of would-be industrialists in order to prove the contention that the human material is available and ready. When applications are likely to be refused and when the applicant is not certain whether it is seriously intended to protect his life and property, he may never apply. But this does not mean that he would not apply if a reasonable state of affairs would hold out a reasonable promise of success.

What is meant here can perhaps be made clear by some illustrations :—

(*a*) There is no conceivable reason why socks and stockings should be made particularly in Palestine in preference to Egypt or Syria. Indeed, until recently these articles were not manufactured here at all. But some time ago some people came from Poland and started manufacturing these articles. They had had some small experience of the business, but not a sufficient one, and the factory proved a failure in their hands. It was taken over by another Jewish immigrant who all his life (in Russia) had been engaged in this particular business ; he also had sufficient means and he made the factory into a success.

(*b*) No one writing on the industrial possibilities of Palestine could by any logical course of reasoning arrive at the apparently fantastic conclusion that Palestine is a country particularly suited for the manufacture of artificial teeth.

But a Jew who had immigrated into the United States some forty or fifty years ago had become there a most successful manufacturer of artificial teeth, and on coming to Palestine he found that he could manufacture them successfully in Palestine as well. They are now being made in Tel-Aviv in a nice modern factory which gives work to over thirty workers, and they are being exported mainly to England.

(*c*) Polish Jews, born and bred in the leather industry, find that they can economically make leather hand-bags and other leather articles in Tel-Aviv, and compete in the Egyptian and other markets.

(*d*) Lodz is the largest textile centre in Eastern Europe. The most important manufacturer of Lodz was in Palestine last spring, and investigated the possibility of transferring the whole or part of his immense industrial establishments to Palestine. He arrived at a favourable conclusion, and intended to return last autumn in order to take definite initial steps. In August the riots intervened, and the matter remains in suspense for the present.

(*e*) There is room for reasonable doubt whether the Jordan Electricity Scheme would by now have materialised if Mr. Rutenberg had not happened to be a lover of Palestine and at the same time an electrical engineer. The Jordan Scheme is one that asks for an immense confidence in the future ; it does not hold out any brilliant immediate prospects. It is more than doubtful whether money could have been found for it if the first capitalists who supplied it had not been Zionists.

(*f*) The mountain out of which the Nesher Cement Factory quarries its limestone is as old as Palestine, and cement has been made all over the world for scores of years. But the Nesher Cement Factory would not exist to-day if Mr. Michel Pollak, a Jewish and Zionist capitalist who for many years had studied the cement industry and its market, had not found that he could with advantage make cement in Palestine.

(*g*) The Shemen Oil Factory owes its existence to an oil engineer and a prominent business man in the oil trade, who found that they could economically refine oil in Palestine.

(*h*) There are quite a fair number of small enterprises in Tel-Aviv and elsewhere, like knitting factories and others, of which similar things can be said.

32. If, therefore, we ask ourselves what industries have a future in Palestine, we have to reply that every industry has a future that is taken up by people who understand, it and who have or are supplied with sufficient means, provided they produce something which can compete in some market. This may sound somewhat vague, but the striking example of the artificial teeth factory shows that a much closer definition is impossible.

Some instances will make the position clear :—

(*a*) The clothing industry is a specifically Jewish industry all the world over. It has a great future in the Near East, where the habit of wearing European clothing is daily gaining ground. Palestine could easily become a centre of this industry, and very probably tens of thousands of people could live on it.

(*b*) There is no reason why Palestine should not in the long run attain a position in the tobacco industry in the same manner as Egypt has done.

(*c*) In Poland and elsewhere Jews play an important part in the textile industry. There are already promising, though quite modest, beginnings in Tel-Aviv. Throughout the Near East textiles figure predominantly in the import statistics. The extent to which a textile industry in Palestine could develop cannot be estimated.

(*d*) Preserved fruits and vegetables hold out certain promising prospects.

(*e*) The book and printing industry is certainly in its infancy only. Palestine is a centre from which tens of thousands of Hebrew books now go out into the world. This figure can be multiplied many times yet.

(*f*) The chemical industry, based on the salts extracted from the Dead Sea, holds out prospects the extent of which cannot yet be estimated.

33. This is the place to mention, in passing, an " industry " which already plays a not unimportant part in the country's economic life, and is bound to play a much larger one still in future, viz., the tourist industry.

Palestine is the Holy Land for three creeds. Its political importance, its historic fame, its scenery, the Zionist settlement viewed as an interesting colonising and sociological experiment, all these factors contribute towards attracting to Palestine an increasing number of tourists. The proximity of so large a tourist centre as Egypt is further helpful. The port of Haifa will meet the requirements of the largest " Mediterranean Cruise " steamers.

An attempt at stating exact figures would be futile. A " tourist " in the sense of the Palestine Immigration Statistics is not of necessity a " tourist " in the sense of the travelling and hotel industry. It will be sufficient to emphasise the growing importance of this source of prosperity, which is able to give employment (hotels, shops, transport, etc.) to a large number of immigrants.

34. Now all this discourse on future possibilities might, perhaps, in spite of all that has been said here and elsewhere, be waved aside as mere dreams, if we had not before us the solid and indisputable fact that there does exist a Jewish industry, that it does provide a livelihood (in a direct way) for 33,000 Jews, and that it has absorbed roughly one-third of post-war immigration. Surely an industrial movement that has done as much, in

spite of lack of encouragement and sympathy, may be expecte and trusted to do more.

If it is asked whether what has been performed rests on a secure foundation, the following reply may be given :

Palestine industry is very young. It has naturally had to go through certain vicissitudes, and there is no guarantee that other vicissitudes will not follow yet. The Jews do not pretend to be able to do what no people in the world has yet performed : to build up an industry that will never know crisis or failure. We have stated above, with regard to the so-called 1925–26 crisis, that, if there was a real crisis at all, there was no crisis in industry. The figures of paragraph 20 show this indisputably. But if there had been, what of it ? Has England never known any industrial crisis, and has any such crisis been a reason for despair of the future ?

More, however, may be said.

(1) *For several years now no industrial enterprise of any importance has closed down or got into difficulties.*

How many countries can say as much ?

(2) *Palestine industry knows no unemployment problem : it is clamouring for labour.*

Can England, Germany or the United States say as much ?

35. An industry that gives direct employment to 14,700 people, who, together with their dependants, form a population of 33,000 naturally gives in an indirect way further employment to a very considerable population. Trade and the liberal professions live on the agricultural and industrial producers. It is not intended, however, in the present Memorandum to indulge in calculations of the additional number of people who indirectly subsist on industry, but it was found necessary to draw proper attention to this important consideration.

36. If we now come to consider industry under the broader aspect of Urban Settlement, then it must occur to us at once that Urban Settlement need not draw on industry alone for its development.

The building industry has already been mentioned, inasmuch as the number of workers employed in it has been incorporated in the statistical figures of paragraph 17. A little more, however, should be said about it.

In the nature of things the building industry cannot produce for export. It is also in the nature of things that in a country with an irregular immigration it should be an industry of rather strongly vacillating extent, or, in plain words, that it is bound

to know periods of unemployment. Still it has to all intents and purposes known only one such period in after-war history, viz., the well-known years of 1926 and 1927.

Palestine has no reserves of dwelling accommodation to speak of. In the summer of 1927, when the so-called crisis was, perhaps, at its most alarming height, the General Mortgage Bank for Palestine had a statistical survey made of empty lodgings in the city of Tel-Aviv. This survey showed that even at that time among a total of 20,000 rooms there were only 516 uninhabited or $2\frac{1}{2}$ per cent. Such a percentage (in an abnormal time) is lower than what was considered a normal and desirable reserve in a large European town before the war.

As it is, there is not sufficient housing accommodation yet in a town like Tel-Aviv. Tents, which were very frequent eight or ten years ago, have now vanished, but the city still counts whole quarters consisting of barracks only, altogether about 771 barracks with a population of about 3,745.

Building for this population is a matter mainly of saving and mortgage credit. There is an enormous amount of saving going on, and it will be possible to make available gradually and as necessity arises the necessary mortgage capital, provided confidence in the stability of conditions in Palestine returns and Jewish capital be not discouraged.

Even without taking into account the needs of an immigrating population, there exists the want of a building industry. Its main basis, however, is formed by immigration.

Supposing that 15,000 people immigrate in the course of one year, they will require, say, 6,000 or 7,000 rooms,* the building of which costs at least £700,000. This building cost includes not less than £450,000 wages, which means employment for about 5,000 men and, on the assumption that one-half will be married (paragraph 19), it means that about 13,500 persons will live on this industry in a direct way.

This figure does not take into account building of roads and public building. As it is not intended to arrive at any aggregate figure of future immigration possibilities, no attempt will be made here to calculate the number of workmen to be employed on this kind of work. It will be sufficient to mention it here.

It will probably be unnecessary to point out that the whole of this work can be done without displacing any Arab labour.

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* Not at once, of course, many of the immigrants being penniless agricultural and urban workers who for quite a time will put up with barracks. But in the long run they will all want houses and be able to pay either purchase price or rent.

37. Some idea of the importance of the building industry may be gained from the following figures, quoted from the Memorandum submitted quite recently to the Mandates Commission by the National Council (Vaad Leumi) of the Jews of Palestine :

> " According to Government reports, the following sums were invested in the building industry in the period 1924-28 : Tel-Aviv, £2,224,000 ; Jerusalem, £1,558,000 ; Haifa, £498,700 ; Jaffa, £458,000 ; Tiberias, £124,000 ; Safed, £11,300. In Tel-Aviv the building done is totally Jewish. As to the remaining cities with a mixed population, here, too, Jewish building activity is most conspicuous. There have grown up during this period new Jewish suburbs, small and big, such as Hadar Hacarmel, Bat Galim, etc., in Haifa, Talpioth, Beth Hakerem, and others in Jerusalem, Kiriath Shmuel in Tiberias, and others. But even if we assumed that the participation of the Jews in the upbuilding of these cities does not exceed the proportion of the Jewish element in the total population, we would still obtain the following figures as representing the Jewish contribution to the building industry during the period referred to : in the upbuilding of Jerusalem, £953,000 ; Tel-Aviv, £2,224,000 ; Jaffa, £77,800 ; Tiberias, £82,800 ; Safed, £3,800, making a total of £3,541,000, representing Jewish investment in buildings in the period 1924-28, as against £600,000 to £700,000 in the period 1921-23. Actually Jews have invested in the reconstruction of towns considerably larger sums. We must add to these figures those representing the investment in the new buildings in the Colonies. In the thirty-four plantation colonies alone there have been built during the period 1919-29, 1,469 private houses and 83 public buildings, excluding the farm buildings, such as stables, chicken coops, etc. The aggregate investments on buildings in Jewish colonies (whose number is 107) during the period in question, will certainly total a sum of well over half-a-million pounds. If we add to these figures the figures for building works during 1929 (over £300,000), we will find that in the past ten years the Jewish community have invested in the building of houses a sum of well over £5,000,000."

38. The total number of Jewish workmen employed in the building industry may be put at present (paragraph 17) at less than 2,000. It follows, therefore, that when there will be anything like a regular immigration, even much smaller than the modest figure of 15,000 mentioned above, the question of unemployment cannot arise.

A large immigration is bound, quite unavoidably bound, to bring about a more or less corresponding expansion of the building industry, and a subsequent contraction of the immigration figure may then cause a measure of unemployment until there will be a readjustment.

Urban immigration without a reasonable provision for housing accommodation is a preposterous proposition. House building demands labour. To restrict urban immigration, which otherwise would be reasonably justified, for no other reason than that no sufficient housing accommodation is available, and that it is feared that part of those to be employed on procuring it might at some future time be unemployed, is an impossible policy.

39. The housing problem which, of course, is most intimately connected with the building industry, has, until the present time, been left entirely to private enterprise, with some measure of support on the part of Jewish public and semi-public bodies. The Government of Palestine has not until now considered that it is under any duty in this respect. In this respect the Government of Palestine stands alone among the Governments of practically the whole of Europe, which after the war have paid a considerable amount of attention to the matter of housing and have spent enormous sums on it.

40. We may now sum up as follows :

(1) Jewish industry in Palestine is in the main of post-war growth ; that is to say, it is not more than ten years old. The greater part of it is much younger.

(2) It is fairly well established, as appears from the fact that there is no unemployment and that there have been no failures of any importance for several years. It has passed through a fierce boycott attack without suffering any appreciable harm.

(3) It employs in a direct way 14,700 people who, together with their dependants, form a population of 33,000, which, in its turn, provides employment for many more thousands of persons. It has absorbed about one-third of the post-war immigration.

(4) It has done this without causing any economic harm to the Arab population. The economic advantages which it has brought to the Arabs are large, but are not insisted upon here.

(5) This was possible because Jewish industry has filled part of what might be called an economic vacuum.

(6) *Jewish industry is not dependent for its further growth on the taking away of any occupation from Arabs.*

(7) There are considerable prospects for future development. The question of raw materials and power need not cause any worry. There is a sufficient market for output. All depends on suitable men and capital coming in and being sufficiently encouraged and protected.

(8) The very encouraging experience of the past shows that one may look on future prospects with reasonable confidence.

(9) There cannot be any question in this connection of limiting such part of the Jewish immigration as is meant to be absorbed by industry in accordance with an imaginary absorptive capacity of the country from the point of view of industry, if

thereby the absorptive capacity of non-Jewish Palestine is meant. The absorptive capacity of the country from the point of view of industry is dependent only on the willingness and ability of Jewish capitalists to start industries which they understand and the products of which they can market, and of Jewish labour to come in and work.

(10) The immigration policy of the Government of Palestine must be *creative* not *contemplative*, *active* not *passive*, *bold* not *timid*.

The Palestine Potash Limited, for the exploitation of the Concession for extracting minerals from the Dead Sea started its activities on January 1st, 1930.

At present 165 workmen are engaged at the Dead Sea Works. It is expected that this number will be increased within three months' time, when the construction of the Potash Factory will start.

The scheme at present under execution is for production of 10,000 tons of Potassium Chloride of 80 per cent. purity. It is intended that the production of Potassium Chloride will be intensified up to 100,000 tons, provided that the operation of the first plant proves satisfactory. The Company will require, at some later date, a much larger number of workmen, for the harvesting of salts.

The mineral salts of the Dead Sea are not confined to Potassium Chloride, but also contain Magnesium Chloride, Natrium Chloride and Bromine. It is expected that with the development of the resources of the Dead Sea and the extraction of the mineral salts therefrom, there will be a basis for a large chemical industry in the country. This chemical industry will expand to the production of Magnesium Chloride, Caustic Soda, Chlorine and other chemical compounds. Such chemical industries, when developed, will, of course, in the beginning be started on a small commercial scale, and will be adjusted to the needs of the country, but it is hoped that the subsidiary chemical industries, referred to above, will then develop on a larger scale. It is difficult to tell how many workmen will be employed in chemical industries apart from the production of Potassium Salts, but it can generally be said that the exploitation of the Dead Sea Concession will have a beneficial effect on the agricultural development of Palestine, not only as a producer of fertilisers, but also as opening up the Jordan Valley for intensive cultivation, and promises to offer a considerable amount of employment in chemical industries and transport and trade.

IMMIGRATION INTO PALESTINE

JULY, 1930

—

The Jewish Agency for Palestine
77 Great Russell Street
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IMMIGRATION INTO PALESTINE

I.—GENERAL

1. The indirect and direct references to immigration contained in the text of the Mandate are as follows :

Article 2.—The Mandatory shall be responsible for placing the country under such political, administrative and economic conditions as will secure the establishment of the Jewish National Home.

Article 6.—The Administration of Palestine, while ensuring that the rights and position of other sections of the population are not prejudiced, shall facilitate Jewish immigration under suitable conditions and shall encourage, in co-operation with the Jewish Agency referred to in Article 4, close settlement by Jews on the land, including State lands and waste lands not required for public purposes.

In the statement of policy issued in 1922, His Majesty's Government, in reaffirming the declaration of November 2nd, 1917, laid it down as a matter of international concern that the Jewish people "should know that it is in Palestine as of right." His Majesty's Government further acknowledged as a corollary of this right that "it is necessary that the Jewish community in Palestine should be able to increase its numbers by immigration," observing that this immigration cannot exceed "the economic capacity of the country at the time to absorb new arrivals."

These principles were accepted by the Executive of the Zionist Organisation, but the Executive hold, now as then, that it is both the right and privilege of the Jewish Agency to do everything possible to increase the capacity of the country to absorb new settlers. They further hold that it is a clear corollary to the Mandate that in these efforts the Jewish Agency is entitled not only to the full and constant support of the Mandatory Government, but also to its active co-operation.

2. With reference to the above, the Report of the Palestine Commission of Enquiry contains the following allegation (from which Mr. Snell dissents), that "there is incontestable evidence that in the matter of immigration there has been a serious departure by the Jewish authorities from the doctrine accepted by the

Zionist Organisation in 1922 that immigration should be regulated by the economic capacity of Palestine to absorb new arrivals."

This charge is based upon the fact that in 1926 and 1927 there was an undoubted economic crisis following upon a large immigration. It is necessary to point out that in those years, as to-day, the final word in fixing the number of immigrants rested with the Palestine Administration, and if a miscalculation was made, its responsibility was not less than that of the Zionist Organisation. It is also necessary to point out that since those years there has been a resumption of immigration, and Jewish unemployment has been reduced almost to vanishing point. The facts are, therefore, that in the ten years from 1920 to 1930 there was one economic crisis, which was not prolonged, which was overcome almost exclusively by the efforts of the Jews themselves, and during which no single Jew became a direct charge on public funds.* But for that crisis the decade has been for Palestine a period of exceptional economic and social progress, primarily due to Jewish labour and Jewish capital, which are closely linked together, and which immigration makes effective as factors in the development of the country.

3. Subject to the control of Government in regard to the grant of immigration certificates and also the actual entry of immigrants into Palestine, the Jewish Agency deals with all steps connected with the immigration of Jews. Such steps include the investigation of the labour market and of the possibilities of bringing in new immigrants, the selection and training of immigrants abroad, the distribution of certificates among countries and their allocation to individuals, the transportation of immigrants to Palestine, and the finding of employment for them in town and country.

4. The Immigration Department of the Jewish Agency is assisted in its work by institutions of the Jewish Agency in Palestine and abroad, and likewise by various public bodies and advisory committees, comprising representatives of every party and tendency in Zionism and in Jewry. Those institutions are advisory in character, for the responsibility of decision rests with the Jewish Agency, subject to the limitations of governmental control.

5. The admission of new immigrants is determined on the basis of the economic development of the country. The arrival

* Report of His Britannic Majesty's Government to the League of Nations on the Administration of Palestine and Transjordan for the year 1927, p. 96.

of new immigrants is organically connected with the introduction of new capital into the country, the increase of investments, economic progress of a permanent nature, and the prospects of such progress.

This postulate is the basis of the schedules which are submitted to the Government twice a year after the following surveys have been made :

(*a*) An examination of the prospects of the labour market during the coming schedule period in relation to existing sources of employment ;

(*b*) An examination of the openings for additional workers in the country on new works of development.

6. The factors to be considered in investigating the possibilities of introducing new workers are primarily :

(i.) New investments and undertakings of Jewish colonising institutions, such as the Jewish Agency, the P.I.C.A. and credit institutions.

(ii.) New agricultural undertakings, or agricultural undertakings requiring additional labour, principally new plantations.

(iii.) New undertakings in industry, construction and commerce.

(iv.) Government works, allowing for a fair share of Jewish labour.

7. The schedules submitted to the Government are based on definite facts and documents which are specified, and which the Government is able to verify. Every possible effort is made to arrive at an accurate estimate, through expert examination of agricultural prospects, through enquiries of credit institutions, contractors, etc., and through consultation with the Government Departments concerned.

There will, however, always remain a possibility of unforeseen events occasionally intervening and destroying part of the premises on which a schedule is based.

New opportunities of employment depend upon the importation of new capital, national or private, or upon the investment of additional capital already in the country. Both the introduction of new capital and the exploitation of existing capital may be delayed by unforeseen causes, external and internal.

Unforeseen external factors include such a situation as that of the year 1925-26, when the setback in the economic condition of Poland stopped the flow of capital which had accompanied the wave of emigration from Poland, laying the foundation for

an extensive and fruitful development of the country, which was suddenly interrupted.

Internal Palestinian factors include :

(i.) A breakdown in public security, arousing distrust and deterring investors.

(ii.) Natural phenomena such as earthquake and drought, both of which contributed to the economic depression of 1927.

Sufficient protection is afforded against such unforeseen eventualities by :

(*a*) The existing law under which the Jewish Agency accepts responsibility for the maintenance of every immigrant over a period of one year from the date of his arrival in Palestine.

(*b*) The moral responsibility which the Jewish Agency always retains *vis-à-vis* the Jewish people.

These two safeguards are alone sufficient to justify a greater measure of freedom being granted to the Jewish Agency in the regulation of Jewish immigration into Palestine.

8. Jewish immigration, being based on economic opportunities for Jewish immigrants, does not and cannot prejudice the interests of the Arab workers, as the following considerations will show :

(*a*) *In Agriculture :* The introduction of further Jewish labour is mainly dependent upon new enterprise in the field of intensive cultivation. A study of the question will show that the high price paid for land by the Jews and the compensation paid by them to Arab tenants enables the Arab fellah to maintain his connection with the soil, and to develop a more intensive form of cultivation, raising his income and his standard of living.

(*b*) *In Industry :* The introduction of additional industrial workers means the development of economic activity with the following purposes in view :

(i.) To supply modern articles of consumption, the demand for which increases automatically with the increase of the Jewish population ;

(ii.) To win export markets abroad by utilising fresh sources of industrial capital and methods of marketing new to the country.

(*c*) *In Building and Public Works :* The immigrant workers who are absorbed in this branch engage in new building works for the needs of the Jewish population, or in such works as have been carried out previously with Jewish labour, including in the first instance the improvement and opening up of lands acquired for Jewish development.

(*d*) *In the Sphere of Government Works :* The provision for the

employment of Jewish workers in Government public works, which is taken into account in drawing up the schedules of the Jewish Agency is not designed to replace Arab workers by Jews. It takes into account the expansion of the Government works resulting from the growth of the revenues from Jewish sources, and the Jewish working population to whom a fair share of Government work should be allocated.

(*e*) *General :* The newly arrived Jewish worker does not replace an Arab worker in the Arab economic system, since the cost of the Jewish immigrant's labour and the conditions of work which he seeks in accordance with his standard of living and social development are far above those of the Arab worker. These are undisputed facts, and it follows that there can be no danger of the Jewish worker squeezing the Arabs out of the Arab labour market.

9. A suspension of Jewish immigration for political reasons cannot bring the Arabs any economic benefit. The stoppage of immigration paralyses the introduction of new capital and industrial initiative. This reduces the sources of income of the Arabs by reducing the consumption of their agricultural products, by reducing transportation services, by reducing customs revenue, and by reducing the work of porters, stevedores and lightermen—in all of which activities Arabs are actively engaged. The general economic turnover of the country which, as admitted by the Shaw Commission, benefits the Arabs more than the Jews, is bound to decline as a result of a stoppage of immigration.

10. An examination of the last immigration schedule submitted to the Palestine Government will be found to confirm the arguments set out above as proving that the new immigration is built upon a complex of Jewish capital, Jewish initiative, and Jewish enterprise, which create new possibilities of employment for Jewish workers. The state of unemployment among the Arabs (if any) is therefore not relevant to the construction of the immigration schedules, although the Jews are naturally interested in the well-being of the Arab community, which in fact benefits indirectly from the great majority of Jewish development projects. It may, however, be observed that while no reliable data are available as to the unemployment which is said to exist among the Arabs, it can be definitely stated that such unemployment, if it does exist, has not been caused by Jewish immigration. On the contrary, if there were no Jewish immigration and no influx of Jewish capital connected therewith, several thousands of Arabs would be deprived of employment as agricultural workers and as growers of vegetables for their Jewish

neighbours. An attempt is sometimes made to evade the logic of this argument by suggesting that if there were no Jewish immigration, then the Jewish capital which is directed to Palestine would be available for the employment of the Arabs. This is a false hypothesis, since without the possibility of settling Jewish immigrants in Palestine, the influx of Jewish capital could in no circumstances be maintained.

11. It has been alleged that owing to Jewish immigration, the Government has been constrained to allocate to Jewish labour a disproportionate share of its expenditure on public works. Such an allegation cannot be supported by facts, as the following figures show :

SUMMARY OF EXPENDITURE ON PUBLIC WORKS FOR THE PERIOD JULY 1ST, 1920, TO DECEMBER 31ST, 1928

Financial Year.	Public Works Recurrent in £P.	Public Works Extra-ordinary in £P.	Other Departmental Votes in £P.	Total in £P.*	Work Executed by Jewish Labour in £P.
1920-21 (July 1—March 31) ...	75,044	—	?	75,044	—
1921-22 ...	65,215	—	266,680	331,895	178,360
1922-23 ...	102,565	—	81,010	183,575	10,100
1923-24 ...	71,603	8,348	96,424	176,375	6,800
1924-25 ...	112,501	14,320	61,509	188,530	9,500
1925-26 ...	122,770	68,654	{ 22,596 } { 57,084 }	271,104	3,800
1926-27 ...	150,449	131,810	124,766	407,025	1,900
1927 (Apr. 1—Dec. 31) ...	132,313	346,458	44,610	523,381	66,000
1928	141,250	167,136	69,510	377,896	70,150
TOTAL ...	973,710	736,726	824,189	2,534,825	346,610

* See Palestine Government Reports for the years 1921-28, Public Works Section, and Palestine Report for 1928, pp. 20-21. See also Administration Reports of the P.W.D. for the years 1924-25, 1925-26, and 1927. The administrative expenditure itself is deducted from the total.

Note.—In 1920 and 1921, after the Civil Administration had been established, and when, as a result of the war, there was a serious shortage of labour, the help of the Jewish Co-operative Labour Association, consisting mainly of recent immigrants, was sought and appreciated. But soon the percentage of Jewish labour employed began to drop, till in 1925 it was only 1½ per cent., as against 6 per cent. in 1922. The lowest point was reached in 1926. During the period of five years (April 1st, 1922, to March 31st, 1927), out of £1,226,000 spent on public works, only £32,000, or less than 3 per cent., represent the share allowed to Jewish labour. It was only after a long and persistent

effort on the part of the Zionist Executive and of organised Jewish labour, and in view of the widespread unemployment among the Jewish population in 1927, that something was done to remedy this flagrant exclusion of Jewish labour from the public works financed by the Government.

It should also be mentioned that the public works carried out for the relief of the unemployed were for the most part already on the Government's programme and were merely expedited : the most important item, namely, the Jaffa-Petach-Tikvah road, had for a long period stood first on the Government list of roads to be constructed. Even allowing for the works carried out for the relief of Jewish unemployed, the proportion of public works executed with Jewish labour remains substantially less than the share calculated in relation to the Jewish proportion of the settled population, or to the Jewish contribution to the revenues.

12. *The Building Trades.*—The crisis of 1927 was most severely felt in the building trades, in which 4,500 Jewish labourers were engaged at the end of 1926. During the period of economic depression a considerable proportion of these workers were absorbed in the plantation settlements and in industry, while a number left the country. To-day only about 2,500 Jewish labourers are working in the building trades.

In Jerusalem a desire to move out of the Old City has stimulated house construction since the August riots, and it will be several years before this need is satisfied. At Haifa the Jewish population has increased by 12,000 souls in the last nine years, during which period 977 Jewish buildings have been erected. With the additional stimulus of the new harbour works, there is no doubt but that the next few years will see still greater building development in Haifa town. At Tel-Aviv the Township issued building permits for an aggregate of £2,114,419 during the years 1914–1927, when the depression set in. In 1929 there was some revival and approximately £100,000 were spent on new buildings. During the first five months of 1930 there has been a further and increasing recovery with a monthly expenditure of £15,000 on new buildings.

These facts point to the conclusion that the position and prospects of the building trade can be regarded with satisfaction and confidence.

II.—IMMIGRATION MACHINERY AND PROCEDURE

A.—The Machinery of the Jewish Agency Regarding Immigration :

The status of the Jewish Agency in relation to the Government of Palestine with regard to the facilitating of Jewish immigration into Palestine is defined by the Immigration Ordinance, 1925, as follows :

7. (4) It shall be lawful for the Palestine Zionist Executive to notify the Chief Immigration Officer in the form shown in Schedule 5 to the Regulations that there is a reasonable prospect of employing a number of persons either named or unnamed in Palestine and to make an application for permission for their entry to Palestine, but every such application shall be accompanied by a guarantee to maintain the person or persons in respect of whom it is made for a period of not less than one year.

8. (1) In order to determine the number of persons of Category C who may be admitted to Palestine, Labour Schedules shall be prepared from time to time by the Chief Immigration Officer after considering any proposals made in that regard by the Palestine Zionist Executive. One such Labour Schedule shall be prepared in respect of each successive period of six calendar months ending alternatively on September 30th and March 31st, laying down the maximum number of persons belonging to the various trades, industries and callings, who may be granted immigration certificates under Category C during the period covered by the said Schedule.

8. (2) Each schedule, when completed, shall be laid down before the High Commissioner at such a date as he shall determine, and he shall, if he approves it, signify his approval in writing.

The Immigration Department of the Jewish Agency in Jerusalem, which supervises Jewish immigration to Palestine, subject to the control of the Government, executes its functions with the aid of the following organs :

(1) Palestine Offices abroad.

(2) Immigration Offices in Palestine.

(3) An Immigration Board (advisory to the Immigration Department).

(1) *The Palestine Offices Abroad.*

The Immigration Department maintains Palestine Offices abroad in the principal countries of Jewish emigration. Of special importance are the Palestine Offices at Warsaw, Berlin, Kovno, Riga, Bucharest and Aden, and the Port Offices at Trieste and Constanza.

The functions of the Palestine Offices are :

(i.) To supply information regarding the Immigration Regulations in force in Palestine, and the conditions of work and life in the country.

(ii.) Selection and approval of immigrants according to the prevailing requirements of work (on the basis of the instructions received from the Jewish Agency) (*vide* paragraph C below).

(iii.) The registration and census of immigrants and the arrangement of visas and travel documents.

(iv.) Representation of the Jewish Agency before the local British Consul, Government Departments and foreign Consulates in regard to matters pertaining to immigration to Palestine.

(v.) Medical examination of immigrants before departure (*vide* paragraph D below).

(vi.) Assistance for the transfer of personal property and money to Palestine.

(vii.) Assistance to immigrants in connection with their journey to Palestine, etc.

(viii.) Assistance to immigrants to Palestine in transit through the country where the Palestine Office is situated.

The travel conditions and the transport of the immigrants are governed by contracts between the steamship companies and the Immigration Department of the Jewish Agency, in which the interests of the immigrants are safeguarded.

The Immigration Department arranges, through the instrumentality of the Palestine Offices, the transport of the immigrants in special trains or railway carriages, and the immigrants are accompanied to the port of departure, and sometimes (in the case of large transports) to the ports of Palestine.

In connection with every Palestine Office there is a Palestine Committee, the duty of which is to advise the Palestine Offices in regard to the selection of the immigrants for certificates of the Jewish Agency. According to a resolution of the Zionist Congress, the Palestine Committees are responsible to the

Jewish Agency. They include representatives of the different parties of the Zionist movement, viz., General Zionists, Orthodox Zionists (Mizrachi), and the various Labour parties taking part in the Zionist Congress, as well as the organisation which trains candidates for immigration (the Hechalutz). The Director of the Palestine Office, who is appointed by the Jewish Agency, is also a member of the local Palestine Committee.

The Immigration Department of the Jewish Agency maintains constant touch with all the Palestine Offices, furnishing them with information as to the situation in Palestine with special reference to prospective labour needs.

At intervals a representative of the Immigration Department is sent abroad to inspect the work of the Palestine Offices and the conditions governing the transport of immigrants.

(2) *Immigration Offices in Palestine.*

In the Palestine ports (Jaffa-Tel-Aviv and Haifa) there are maintained Immigration Offices of the Jewish Agency with the following objects :

(1) To meet immigrants upon arrival and to arrange their landing, subject to Government control.

(2) To intervene with the Government in appropriate cases where immigrants are detained by the Port Officer on their arrival for further enquiries.

(3) To consult with social institutions dealing with the employment of immigrants in town and country.

(4) To render assistance to immigrants as detailed in paragraph E below, under the head "Reception and Establishment of Immigrants."

Attached to the Immigration Offices in Jaffa and Haifa are hostels where the immigrants are given accommodation and are maintained until they are transferred to work (for the most part this is only for a few days, until they recover from the inoculations to which they are subjected on arrival).

(3) *The Immigration Board.*

Associated with the Immigration Department of the Jewish Agency is an Immigration Board which acts in an advisory capacity in all matters relating to immigration. This advisory body consists of representatives of the Jews in Palestine, comprising farmers, industrialists and labourers, as well as representatives of the Jewish communities (Sephardim, Yemenites). The members of the Board are appointed by the Jewish Agency on the recommendation of the Va'ad Leumi (Jewish National Council). The Immigration Board advises the Immigration

Department of the Jewish Agency on various questions, especially in connection with the Labour Schedule and the distribution of immigration certificates.

B.—The Training Abroad of Immigrant Workers :

A special organisation, the "Hechalutz," deals with the training of the youth for work in Palestine. This organisation functions in all countries which constitute Jewish centres of emigration, and comprises two main groups—that of the Mizrachi (Orthodox Zionists) and that of the General Zionists. There is also a Hechalutz organisation bearing the name of "Trumpeldor."

These organisations receive financial support from, and are periodically inspected by, the Immigration Department of the Jewish Agency. They are at all times under the supervision of the local Palestine Offices. The training programme is based on the following purposes :

(1) To prepare the immigrants generally for a constructive life in Palestine.

(2) To qualify the immigrants for agricultural work in Palestine.

(3) To qualify the immigrants for industrial work and for the building trades.
(Cultural work has an important place in the activities of the organisation, which arranges Hebrew courses and classes for the tuition of the historical geography and natural history of Palestine.)

The training methods conducted by the Hechalutz, the Hechalutz Mizrachi and kindred organisations, are :

(*a*) Farms and agricultural groups where would-be immigrants undergo agricultural training during a specific period.

(*b*) Trade schools and classes, where Chalutzim receive professional training and prepare themselves for industrial and manual work in Palestine.

(*c*) Labour groups, that is, groups of Chalutzim who work in villages and private institutions in seasonal employment.

(*d*) Individual Chalutzim scattered here and there, apprenticed to or working for farmers, factories, etc.

The period of agricultural training, usually required in order to qualify for immigration to Palestine, is two years ; in special cases one year is sufficient.

The number of Chalutzim undergoing training abroad is subject to fluctuation, being dependent on the prospects of immigration into Palestine. According to a recent census, the

Hechalutz organisation had the following number of Chalutzim in training :

Poland	1,360
Galicia	775
Roumania...	368
Germany	335
Lithuania	211
Latvia	150
Czecho-Slovakia	161
Austria	70
Bulgaria	18
Holland	32
France	23
Russia (estimate)...	500
Total	4,003

The Chalutzim to be trained are selected from the Jewish Youth Organisations, in which education is conducted in a spirit of Jewish culture and of Zionism, forming a reserve of pioneer immigrants for Palestine. The number of places in the training institutions being far less than the number of applicants, only the best are admitted.

In order to control the actual training of the Chalutzim abroad, the Immigration Department of the Jewish Agency periodically sends experts to Europe to investigate the system of work and to submit proposals for its improvement. In the current year two agricultural experts from the staff of the Colonisation Department and the Experimental Station of the Jewish Agency were designated for this purpose. In addition to these technical experts, a selected number of experienced agriculturists from Palestine have been sent abroad in order to guide the Hechalutz activities in conformity with the practical needs of the country at the present time. These delegates have gone to Poland, Galicia, Roumania, Germany, Lithuania, Latvia, Bulgaria, France and Holland.

C.—The Selection of Immigrants Abroad :

The selection of the immigrants for Palestine is the first and paramount responsibility of the Palestine Offices abroad, which represent all the Zionist circles interested in the upbuilding of Palestine. These Offices act on the periodical instructions of the Immigration Department of the Jewish Agency, which are given after consultation with the Immigration Board.

The following are the principal points governing the selection of immigrants :

(i.) The needs and openings for Jewish labour in Palestine, as set forth in the Schedule approved by the High Commissioner.

(ii.) A general but not exclusive priority of selection for those who have undergone a special period of preparation for Palestine in the training institutions of the various Hechalutz organisations, and have acquired a fair knowledge of the Hebrew language.

(iii.) The individual selection of skilled workers for specific trades for which new workers are needed.

(iv.) The nomination of persons applied for by relatives already settled in Palestine, who can prove their ability to provide for the establishment of the immigrants in the country in a suitable manner.

Note.—The number of persons registered with the Palestine Offices as candidates for immigration greatly exceeds the number of certificates which are put at their disposal, and there is no difficulty in finding suitable persons for nomination. The local Palestine Committees select the best qualified candidates on the basis of instructions issued by the Immigration Department of the Jewish Agency at Jerusalem, in conformity with the principles set forth above.

D.—Medical Examination of the Immigrants :

One of the main conditions for the approval of immigrants by the Palestine Office is their qualification for hard physical work ; and in order to ensure that desirable and healthy elements fit for work in the Palestine climate should gain admission to Palestine under the Labour Schedule, the Immigration Department has laid down the conditions for the examination of the candidates for immigration, for which purpose selected physicians are appointed by the Palestine Offices.

Three medical examinations are conducted :

(1) On the registration with the Palestine Offices of a candidate for immigration to Palestine ;

(2) Immediately before leaving for Palestine ;

(3) On arrival in Palestine.

The first two examinations are made by the accredited physicians of the Palestine Offices, who issue a certificate on the result of the examination. The third examination is conducted by the Medical Officer of the Kupat-Cholim (Sick Fund of the Labour Federation), and is in addition to the medical examination carried out by the Medical Officer of the Palestine Government.

Every Labour Schedule immigrant is automatically admitted as a member of the Kupat-Cholim by payment of a registration fee on his behalf by the Jewish Agency.

The standing instructions to the accredited physicians for the examination of the immigrants have been prepared by the Va'ad Habriuth (Health Committee) of the Jewish Agency.

In addition, special instructions are issued from time to time to the Palestine Offices on the basis of experience of the results of the examinations conducted after the arrival of the immigrants in Palestine.

E.—The Reception and Establishment of Immigrants in Palestine :

The new arrivals are met by the Immigration Officers of the Jewish Agency in Haifa and Jaffa and, after a stay of a few days in the Immigration hostels, are distributed to places of work in accordance with the labour needs in different parts of the country, which serve also as a basis for the elaboration of the Labour Schedule. This distribution of immigrants is effected with the assistance of the labour exchange of the General Federation of Labour, and of the Mizrachi and Yemenite Workers' Organisations.

The Immigration Department of the Jewish Agency provides the following facilities for the benefit of the immigrants :

(1) Assistance in the ports, quarantine stations, etc.

(2) Maintenance in the Immigration Hostels of the Jewish Agency during the first days after arrival, if necessary.

(3) Loans for tools and equipment at the places of work.

(4) Registration in Kupat-Cholim (Sick Fund) and maintenance in case of illness contracted *en route*.

(5) Grant of travel expenses to place of work.

(6) Erection of accommodation at the places of work (barracks and tents).

(7) Issue of mosquito curtains in places infected with malaria.

During the current year particular attention has been paid to the erection of suitable and hygienic housing for the immigrants, on the basis of a report furnished by a commission of physicians and engineers. Special arrangements were made in the workers' camps in Samaria for protection against malaria.

F.—Immigration of Non-Labour Categories :

The Immigration Department and its institutions also pay attention and afford assistance to immigrants who enter Palestine under categories other than the Labour Schedule, although

these do not enter under the responsibility of the Jewish Agency. The categories referred to are :

(*a*) Persons with independent means, including :
  (i.) Capitalists (£P.1,000 minimum).
  (ii.) Members of Liberal Professions (£P.500).
  (iii.) Persons Skilled in Trade or Craft (£P.250).

(*b*) Persons of Religious Occupation } whose maintenance is
(*c*) Students. } assured.

(*d*) Dependents, *i.e.*, persons applied for by relatives in Palestine who are able to maintain them.

With reference to the immigrants falling under (*a*)(i.) above, the approximate total of such immigrants who have entered Palestine during the past ten years (including only single men and heads of families, but not dependent members of families) is 9,000 (figure confirmed by Chief Immigration Officer).

The financial qualification having, until quite recently, been the possession of a minimum sum of £500, a rough estimate of the capital thus introduced into Palestine can be arrived at by assuming that half of the immigrants possessed only that minimum, while the other half possessed an average of £750 each, which will not be an excessive assumption, as it is known that an appreciable number of the immigrants were in possession of several thousand pounds.

This gives 4,500 immigrants at £500	=	£P.2,250,000
4,500 immigrants at £750	=	£P.3,375,000
Total		£P.5,625,000

The minimum capital required as a qualification for persons of independent means who intend to engage in commerce, industry, or agriculture, has recently been increased to £1,000 as against the £500 fixed in the Regulations of September, 1925, a decision which, it is felt, is not only prejudicial to Jewish immigration as such, but also not conducive to the best interests of the development of Palestine. Although the amount of investment generally required for the establishment of a Jewish family in agriculture has been estimated at £1,000, the cost of land and equipment included, recent calculations with regard to small-holdings in the zone of intensive cultivation have shown the possibility of reducing the capital requirements to a considerably lower figure. Further, experience common to all countries of colonisation proves that agricultural settlement heads the scale of capital requirements, and the installation of a middle-class family in an urban occupation could be fixed at a still lower figure.

Although it is true that the amended Regulations provide for long-term loans granted by recognised institutions for the assistance of agriculture and industry being included within the £1,000 minimum, such inclusion does not always provide a solution of the difficulty, since it is not always practicable or sound policy to grant loans or to lease land to intending immigrants before they have proved themselves effective settlers in the country. For these and other reasons it is held that, at the risk of a few failures, which are in any case inevitable, a return to the former minimum of £500 for immigrants of this category is desirable. There is no doubt that the increase of the minimum to £1,000 is depriving the country of a substantial total of capital which might be available for development.

Note.—With reference to the observations on the subject of immigration contained in the Report of the Commission on the Palestine Disturbances of August, 1929, attention is invited to pages 80 to 93 of the Memorandum on that Report issued by the Jewish Agency for Palestine under date of May, 1930, and submitted to the League of Nations.

III.—IMMIGRATION TO PALESTINE IN RELATION TO THE JEWISH SITUATION IN THE DIASPORA

Throughout the sixty generations of the Dispersion, the Jewish nation has never relinquished its connection with its ancestral homeland, Palestine, and has in various forms sought ways and means for a return. During the last two generations these efforts took systematic form, resulting in the organisation of definite activities. This evolutionary change found expression in the " Hechalutz " movement, initiated fifty years ago by the " BILU," a word formed from the initial letters of the appeal : " House of Israel, Arise and let us go ! " and it was the " Bilu " that laid the foundation of the two colonies, Rishon-le-Zion and Gederah.

After the Great War, the Hechalutz movement increased both in extent and intensity, training large numbers of Chalutzim in many different localities. Apart from the fundamental principle of securing a National Home and a sure place of refuge for the Jewish masses who are suffering in many countries of the Diaspora, the Hechalutz movement is pervaded by a deep moral longing for the reconstruction of Jewish life in Palestine on a new basis, the basis of creative work and self-development. The economic and national urge which gave rise to Zionism, together with the moral and cultural forces of the Hechalutz movement, have discovered in the Jewish nation a new practical ability which has brought success to its constructional activities in Palestine, in agriculture and in industry, and also to its concerted efforts for the revival of Hebrew culture. The Hechalutz youth, through the process of his preparation for Palestine, culminating in his departure for the country, raises the enthusiasm of all sections of Jewry in the country of his origin, stimulating to action their latent desire to participate themselves in the Jewish revival in Palestine.

Immigration to Palestine during the past ten years has attained a figure of 100,000. These immigrants came from every part of the world : the principal contributors being Poland, Russia, Roumania, Lithuania, Germany, Czecho-Slovakia, and the Yemen.

(1) Poland.

In the post-war Polish Republic there are approximately 3,000,000 Jews, of whom the great majority derive their livelihood from commerce, industry and handicraft. Before the war the Jews, inhabiting those parts of the Russian Empire which are to-day included in the Polish State, cultivated commercial relations with the interior of Russia ; but with the establishment of the Polish Republic, the great markets of Russia were closed to them and their economic life was undermined. This change resulted in an economic surplus of Jews, whose commercial vocations had no place in the economic structure of the post-war period. This situation was aggravated by the fact that there simultaneously arose amongst the Poles themselves a movement to enter that field of economic activity which was previously controlled by the Jews. This economic penetration was accompanied by a national economic struggle, in which State and people worked together to eject the Jews from their former economic positions, making considerable use of the co-operative movement for this purpose. All these factors combined to bring ruin upon the Jews of Poland, rendering immigration on a large scale imperative. It is particularly for the Jewish youth of Poland, which aspires to go over to manual labour and productive pursuits, that Palestine affords the essential solution.

The number of Jews who emigrated from Poland during the past decade is about 45,000, approximately 40 per cent. of the total. Of these a large proportion belong to the category of persons of independent means who invested their capital in industrial and agricultural enterprises. The majority of the younger Chalutzim, who have been absorbed into the economic life of Palestine, also came from Poland.

(2) Russia.

In post-war Russia, reduced by vast stretches of territory on her western border, there now live about 2,600,000 Jews, whose economic position before the Bolshevik revolution was based upon commerce, industry and handicrafts. Under the political and economic conditions of the Soviet *régime*, a considerable proportion of these Jews now find themselves without any legal vocation, while the retarded economic life of the country and the abnormal conditions prevailing preclude the possibility of their being absorbed in normal productive occupations. Thus, throughout this immense territory Jews find themselves in a condition of hopeless economic ruin.

The Zionist movement and Jewish nationalism generally,

which before the war had their most vigorous centres within Russian Jewry, making thence a great contribution to Zionism both in spirit and in strength, are to-day the object of determined persecution under a *régime* which regards them as counter-revolutionary forces to be ruthlessly eradicated. The Jewish religion also has been singled out for malicious and savage persecution.

Thus for the Jews of Russia the appalling economic conditions to which they have been reduced, and the political and religious persecution to which they are continuously exposed, make emigration the only possible alternative to economic extinction on the one hand, and racial and moral degeneration on the other.

Since 1919, 27,000 Jews have entered Palestine from Russia. Of these about 2,000 came from various places of exile throughout Siberia and Asiatic Russia. Many of them had been confined in cells under barbarous conditions as a punishment for their profession of Zionist faith or for attempts to organise Chalutz activities through the training of the younger generation for agriculture and other work in Palestine. The one favour which the Soviet Government in some cases grants to these young Jews, on the ground that it is synonymous with perpetual banishment from Russia, is permission to leave the country for Palestine.

(3) Roumania.

With the post-war annexations by Roumania of Bessarabia, Bukovina and Transylvania, the Jewish population rose to 960,000 souls, whose economic condition is aggravated by the fact that a considerable proportion of them—those of Bessarabia —have been cut off from their former economic hinterland in Russia. Political depression and periodical anti-semitic excesses are further factors in the Palestine movement among the Jews of this country, where Zionism has been strong since the founding of the first Jewish colonies in Palestine and the inception of modern Zionism.

Immigrants from Roumania during the period under review number 5,000, for the most part young Chalutzim, and including a number of refugees from Russia who had crossed the Roumanian frontier with a view to emigration to Palestine.

(4) Lithuania.

The Jewish population in this new State is about 150,000, but the Palestine movement is strong out of all proportion to this number. The people at large are backward and uneducated, and anti-semitism is strong among them ; it is this factor which

determines the policy of the Government in its endeavour to squeeze the Jews out of the economic life of the country.

Stimulated on the one hand by a strong sense of Jewish and Hebraic idealism, and on the other by critical economic conditions, 3,500 immigrants have entered Palestine during the last ten years from Lithuania.

(5) Western Europe (Germany, etc.).

The Palestine movement in Western Europe, especially in Germany, Czecho-Slovakia, Holland and Austria, finds its strength primarily among the younger generation—graduates of secondary schools and academic institutions. Here the Jewish youth is imbued with the same ideals as to-day pervade the great concentrations of Jews further East : namely, to make the Jewish people more productive, turning them from commercial occupation and the liberal professions to labour on the soil, in industry and in construction.

This youth, comprising to a large extent children of well-to-do parents, regards labour as the foundation upon which the life of the Jewish people in Palestine is to be built up, and the countries mentioned have contributed about 5,000 immigrants to Palestine during the period under review, who for the most part have been absorbed in agricultural labour after receiving special training abroad with this end in view.

(6) The Yemen.

This Moslem kingdom, lying at the southern extremity of the western shore of the Arabian peninsula, has a very primitive form of Government under the autocratic rule of the Imâm. Owing to its isolated geographical situation, and the hostility between its ruler and Great Britain, the interior of the Yemen is virtually closed to Europeans.

The Jewish community dates back to pre-Islamic times, and estimates as to its numbers vary from 40,000 to 60,000 souls. These Jews are deprived of all civil rights, while there is in force a monstrous decree that all orphans who are minors become wards of the Imâm, and must adopt Islam, a decree which in recent years has been enforced more rigorously than previously. The Jews of the Yemen are for the most part skilled workers in handicrafts or agriculturists, while, being bred to life in the Orient, they very readily become assimilated to Palestinian conditions.

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The journey from the Yemen to the coast of Aden takes twenty days, and is fraught with the perils of brigandage and murder, yet by this terrible route some 2,000 Yemenite Jews

have entered Palestine since the war. Of these no fewer than 600 entered during the past year, their departure from the Yemen being largely simulated by fear of the decree as to the forcible conversion of orphan children. These immigrants are mostly working as agricultural labourers in the older colonies, while some have been settled separately in agricultural settlements of their own, with the help of the Jewish Agency.

(7) America.

The United States, and to a less extent Canada, have made an important contribution to the upbuilding of Palestine through the capitalist immigrants who have brought considerable sums into the country for investment in agriculture and industry. Latterly, moreover, a Chalutz movement has made itself evident among the Jewish youth of both countries, inspired by the desire to participate in the upbuilding of the country on a new foundation of work.

Taking both categories together, some 1,500 immigrants have entered Palestine from North America since the war.

About 16 million Jews are scattered over the face of the globe. Although a considerable number have reached the highest positions in the world of science, letters, politics and finance in the various countries of their residence, the Jewish people as a whole is one of the poorest of peoples, while the Jewish masses live in conditions of extreme economic insecurity. Moreover, in many countries Jews find themselves in a condition of political and social depression threatening them with cultural and moral degeneration.

The Zionist aspiration for a National Home in Palestine is for an ever-increasing number of Jews a light which always burns. Without this light, for vast numbers of Jews in Eastern Europe and in the Yemen, there would be darkness complete. It is obvious that only a proportion of the Jews who turn their thought to Palestine can hope to settle there, but so long as immigration is in progress to the maximum extent to which the country can be made to absorb immigrants, all Jews can find strength and hope in the knowledge that such a process is in being. The knowledge also creates a regular output of effort and of sacrifice for the benefit of Palestine, since immigration to Palestine and the Chalutz movement are the chief factors producing a flow of capital to the country, which in turn creates new possibilities of development such as to provide for the advancement of the conditions of life of the existing inhabitants, and for the settlement and absorption of new immigrants from abroad.

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Jewish agency for Israel.

Palestine, land settlement, urban development and immigration. Memorandum submitted to Sir John Hope Simpson, C. I. E., special commissioner of His Majesty's government, July, 1930. London, The Jewish agency for Palestine, 1930.

Cover-title, 107, [1]p. 3 fold. tab. 22cm.

Each part has special t.p.

1. Palestine--Econ. condit. 2. Jews in Palestine. 3. Agricultural colonies--Palestine. 4. Palestine--Indus. 5. Palestine--Emig. & immig. I. Title.

CCSC/jc

A 11165